

REPORT 2020

INTERNATIONAL UNION OF THEORETICAL AND
APPLIED MECHANICS

REPORT 2020



Institute of Fundamental Technological Research
Polish Academy of Sciences
Warsaw, Poland

Edited by Henryk Petryk and Paweł Hołobut
Printed in Poland by EXDRUK (Wrocław)

ISBN-978-83-65550-26-2

Contents

Bureau: Officers and Members	1
Secretariat.....	1
Past Officers	1
Past Congress Presidents.....	2
Adhering Organizations	4
Affiliated Organizations	13
Members of the General Assembly.....	18
Observers to the General Assembly	21
Members of the Congress Committee	22
Members of the Symposia Panels	23
Donations in 2020.....	23
IUTAM Representation in ISC and its Scientific Committees.....	23
Reports of the IUTAM Symposia held in 2020.....	24
Reports of the IUTAM Summer Schools held in 2020.....	24
ICTAM 2020 Milan.....	24
Summary Record of the General Assembly Meeting 2020	25
2020 Treasurer’s Report	46
Reports on Affiliated Organizations.....	51
AFMC (Asian Fluid Mechanics Committee).....	51
BICTAM (Beijing International Center for Theoretical and Applied Mechanics).....	51
CISM (International Centre for Mechanical Sciences)	52
EUROMECH (European Mechanics Society)	54
HYDROMAG (International Association for Hydromagnetic Phenomena and Applications).....	56
IABEM (International Association for Boundary Element Methods).....	57
IACM (International Association for Computational Mechanics)	58
IASCM (International Association for Structural Control and Monitoring)	59
IAVSD (International Association for Vehicle Systems Dynamics)	59
ICA (International Commission for Acoustics)	61
ICF (International Congress on Fracture)	64
ICHMT (International Centre for Heat and Mass Transfer).....	65
ICM (International Conference on the Mechanical Behaviour of Materials).....	66
ICR (International Committee on Rheology).....	67
ICTS (International Congresses on Thermal Stresses).....	68
IHAV (International Institute of Acoustics and Vibration)	68
IMSD (International Association of Multibody System Dynamics)	69
ISIMM (International Society for the Interaction of Mechanics and Mathematics).....	71
ISSMO (International Society for Structural and Multidisciplinary Optimization)	72
LACCOTAM (Latin American & Caribbean Congress of Theoretical and Applied Mechanics).....	74
WCB (World Council of Biomechanics)	74

Reports on ISC and its Scientific Committees	76
ISC (International Science Council)	76
CODATA (Committee on Data).....	77
COSPAR (Committee on Space Research)	78
SCOR (Scientific Committee on Oceanic Research).....	78
Statutes.....	79
Statuts de l'Union Internationale de Mécanique Théorique et Appliquée	79
Règles de fonctionnement du Comité des Congrès de l'Union	85
Règles pour l'élection du Bureau de l'IUTAM.....	86
Règles pour l'élection de Membres Cooptés par l'Assemblée Générale	87
Statutes of the International Union of Theoretical and Applied Mechanics	88
Rules of procedure for the Congress Committee (CC) of IUTAM.....	94
Procedure for election of the Bureau of IUTAM.....	95
Procedure for electing Members-at-Large of the General Assembly.....	95
List of Publications.....	97
Proceedings of IUTAM Symposia.....	98
Proceedings of the International Congresses on Theoretical and Applied Mechanics (ICTAM)	108
Publications on the history of IUTAM	112

Bureau: Officers and Members

The following members of the Bureau of IUTAM have been elected for the period 1 November 2020 to 31 October 2024:

Officers

Professor N.A. Fleck (UK)	President
Professor N. Aubry (USA)	Vice-President
Professor D. Henningson (Sweden)	Treasurer
Professor H. Petryk (Poland)	Secretary-General

Members

Professor A.P.S. Freire (Brazil)	(elected 2016)
Professor I.G. Goryacheva (Russia)	(elected 2016)
Professor K. Kishimoto (Japan)	(elected 2020)
Professor D. Lohse (Netherlands)	(elected 2020)

Secretariat

IUTAM-Secretariat, Institute of Fundamental Technological Research,
Polish Academy of Sciences, Pawińskiego 5B, 02-106 Warsaw, Poland
Telephone: +48 22 826 98 34
E-mail: IUTAM.Petryk@ippt.pan.pl
Internet: <https://www.iutam.org>

Past Officers

<i>Elected</i>	<i>President</i>	<i>Vice-President</i>	<i>Treasurer</i>	<i>Secretary</i>
1948	J. Péres (France)	R.V. Southwell (UK)	H.L. Dryden (USA)	J.M. Burgers (Netherlands)
1952	H.L. Dryden (USA)	J. Péres (France)	G. Temple (UK)	F.A. v. d. Dungen (Belgium)
1956	F.K.G. Odqvist (Sweden)	H.L. Dryden (USA)	G. Temple (UK)	M. Roy (France)
1960	G. Temple (UK)	F.K.G. Odqvist (Sweden)	W.T. Koiter (Netherlands)	M. Roy (France)
1964	M. Roy (France)	G. Temple (UK)	W.T. Koiter (Netherlands)	H. Görtler (Germany)
1968	W.T. Koiter (Netherlands)	M. Roy (France)	H. Görtler (Germany)	F.I. Niordson (Denmark)
1972	H. Görtler (Germany)	W.T. Koiter (Netherlands)	D.C. Drucker (USA)	F.I. Niordson (Denmark)

1976	F.I. Niordson (Denmark)	H. Görtler (Germany)	D.C. Drucker (USA)	J. Hult (Sweden)
1980	D.C. Drucker (USA)	F.I. Niordson (Denmark)	E. Becker (Germany)	J. Hult (Sweden)
1984	J. Lighthill (UK)	D.C. Drucker (USA)	L.v. Wijngaarden (Netherlands)	W. Schiehlen (Germany)
1988	P. Germain (France)	J. Lighthill (UK)	L.v. Wijngaarden (Netherlands)	W. Schiehlen (Germany)
1992	L.v. Wijngaarden (Netherlands)	P. Germain (France)	B.A. Boley (USA)	F. Ziegler (Austria)
1996	W. Schiehlen (Germany)	L.v. Wijngaarden (Netherlands)	L.B. Freund (USA)	M.A. Hayes (Ireland)
2000	H.K. Moffatt (UK)	W. Schiehlen (Germany)	L.B. Freund (USA)	D.H. van Campen (Netherlands)
2004	L.B. Freund (USA)	H.K. Moffatt (UK)	J. Engelbrecht (Estonia)	D.H. van Campen (Netherlands)
2008	T.J. Pedley (UK)	L.B. Freund (USA)	N. Olhoff (Denmark)	F. Dias (France)
2012	V. Tvergaard (Denmark)	T.J. Pedley (UK)	P. Eberhard (Germany)	F. Dias (Ireland)
2016	N. Aubry (USA)	V. Tvergaard (Denmark)	P. Eberhard (Germany)	H. Petryk (Poland)

Past Congress Presidents

<i>No.</i>	<i>Year</i>	<i>Place</i>	<i>Congress-President</i>
1	1924	Delft, The Netherlands	C.B. Biezeno
2	1926	Zürich, Switzerland	E. Meissner
3	1930	Stockholm, Sweden	A.F. Enström
4	1934	Cambridge, UK	C.E. Inglis
5	1938	Cambridge, USA	K.T. Compton
6	1946	Paris, France	H. Villat
7	1948	London, UK	R.V. Southwell
8	1952	Istanbul, Turkey	K. Erim
9	1956	Brussels, Belgium	F.H. van den Dungen
10	1960	Stresa, Italy	G. Colonnetti
11	1964	Munich, Germany	H. Görtler
12	1968	Stanford, USA	N.J. Hoff
13	1972	Moscow, USSR	N.I. Muskhelishvili
14	1976	Delft, The Netherlands	W.T. Koiter
15	1980	Toronto, Canada	F.P.J. Rimrott
16	1984	Lynby, Denmark	F. Niordson
17	1988	Grenoble, France	P. Germain and M. Piau

18	1992	Haifa, Israel	J. Singer
19	1996	Kyoto, Japan	T. Tatsumi
20	2000	Chicago, USA	H. Aref
21	2004	Warsaw, Poland	W. Gutkowski
22	2008	Adelaide, Australia	E. Tuck
23	2012	Beijing, China	Y. Bai
24	2016	Montréal, Canada	J.M. Floryan

Adhering Organizations

Armenia (2016) (*Associate Organization*)

Armenian National Committee on Theoretical and Applied Mechanics
24B Marshall Baghramyan Ave., 0019 Yerevan
President/Chair: Prof. A. (Ara) Avetisyan
Representative in IUTAM: Prof. A.V. (Avetik) Sahakyan

Australia (1964)

The Australian National Committee for Mechanical and Engineering Sciences of the Australian Academy of Science
GPO Box 783, Canberra City, ACT 2601
President/Chair: Prof. M. (Mark) Bradford
Representatives in IUTAM: Prof. M. (Mark) Bradford, Prof. J.E. (John) Sader

Austria (1951)

Austrian National Committee for Theoretical and Applied Mechanics of the Austrian Academy of Sciences
Dr.-Ignaz-Seipel-Platz 2, A-1010 Wien
President/Chair: Prof. M. (Manfred) Kaltenbacher
Contact: Prof. F. (Franz) Rammerstorfer
Representative in IUTAM: Prof. A. (Alfred) Kluwick

Belgium (1949)

The National Committee for Theoretical and Applied Mechanics of the Royal Academies for Science and Arts of Belgium
Hertogsstraat 1 rue Ducale, B-1000 Brussels
President/Chair: Prof. P. (Patrick) Guillaume
Contact: Prof. W. (Walter) Bosschaerts
Representatives in IUTAM: Prof. W. (Wim) Desmet, Prof. P. (Patrick) Guillaume,
Prof. D.V.H. (Dirk) Vandepitte

Brazil (1982)

Associação Brasileira de Engenharia e Ciências Mecânicas – ABCM
Avenida Rio Branco 124/18º andar, 20040-001 Rio de Janeiro
President/Chair: Prof. G. (Gherhardt) Ribatski
Contact: Prof. A.P.S. (Atila) Freire
Representatives in IUTAM: Prof. J.B.R. (Juliana) Loureiro,
Prof. M.A.F. (Marcello) de Medeiros

Bulgaria (1969)

Bulgarian National Committee on Theoretical and Applied Mechanics of the Bulgarian Academy of Sciences

1, 15 novembre str., BG-1040 Sofia

President/Chair: Prof. S. (Stefan) Radev

Representative in IUTAM: Prof. S. (Stefan) Radev

Canada (1963)

The National Research Council of Canada, Canadian National Committee for IUTAM
1200 Montreal Road, Building M-50, Ottawa, Ontario K1A 0R6

President/Chair: Prof. M. (Marco) Amabili

Secretary: Prof. P. (Peidong) Wu

Representatives in IUTAM: Prof. M. (Marco) Amabili, Prof. K. (Kamran) Behdinan,
Prof. J.M. (Maciej) Floryan, Prof. M. (Marilyn) Lightstone

Chile (1996)

The Chile National Committee on Theoretical and Applied Mechanics
Academia Chilena de Ciencias

Almirante Montt 454, Santiago

President/Chair: Dr. J. (Juan) Asenjo

Secretary: Dr. F. (Francisco) Hervé

Contact: Prof. F. (Fernando) Lund

Representatives in IUTAM: Prof. F. (Fernando) Lund

China (1980)

The Chinese Society of Theoretical and Applied Mechanics

15 Beisihuanxi Road, 100190 Beijing

President/Chair: Prof. D. (Daining) Fang

Secretary: Prof. Y.Z. (Yazheng) Yang

Contact: Mr. J. (Jie) Chen

Representatives in IUTAM: Prof. D. (Daining) Fang, Prof. G.W. (Guowei) He,
Prof. T.J. (Tianjian) Lu, Prof. W. (Wei) Yang, Prof. X.J. (Xiaojing) Zheng

China-Hong Kong (1996)

The Hong Kong Society of Theoretical and Applied Mechanics (HKSTAM)

Department of Mechanical Engineering, City University of Hong Kong

83 Tat Chee Avenue, Kowloon Tong, Hong Kong

President/Chair: Prof. L. (Li) Cheng

Secretary: Prof. Z.-Q. (Zhong-Qing) Su

Representative in IUTAM: Prof. Q.-P. (Qing-Ping) Sun

China-Taipei (1980)

The Society of Theoretical and Applied Mechanics
Department of Civil Engineering, National Taiwan University
No. 1, Sec. 4, Roosevelt Rd., 10617 Taipei
President/Chair: Prof. C.-S. (Chuin-Shan “David”) Chen
Secretary: Prof. S.-W. (Shu-Wei) Chang
Contact: Prof. S.-W. (Shu-Wei) Chang
Representatives in IUTAM: Prof. S.-S. (Shu-San) Hsiau,
Prof. W.-C. (Wei-Chung) Wang

Croatia (1994)

Croatian Society of Mechanics
Ivana Lučića 5, HR-10000 Zagreb
President/Chair: Prof. Z. (Zdenko) Tonković
Contact: Prof. G. (Goran) Turkalj
Representative in IUTAM: Prof. G. (Goran) Turkalj

Czech Republic (2018/1949)

Czech Society for Mechanics
Dolejškova 5, CZ-18200 Prague 8
President/Chair: Prof. J. (Jindrich) Petruska
Secretary: Dr. J. (Jiri) Naprstek
Contact: Prof. M. (Miloslav) Okrouhlik
Representative in IUTAM: Prof. M. (Miloslav) Okrouhlik

Denmark (1949)

National Committee for Theoretical & Applied Mechanics
The Royal Danish Academy of Sciences and Letters
H.C. Andersens Boulevard 35, DK-1553 Copenhagen V.
President/Chair: Prof. T. (Tom) Fenchel
Contact: Prof. C. (Christian) Niordson, Prof. J.N. (Jens Nørkær) Sørensen
Representatives in IUTAM: Prof. C. (Christian) Niordson,
Prof. J.N. (Jens Nørkær) Sørensen

Egypt (1976)

Academy of Scientific Research and Technology
Egyptian Committee of Theoretical and Applied Mechanics
101 Kasr El Eini Street, 11516 Cairo
President/Chair: Prof. M. (Mahmoud) Sakr
Contact: Prof. S. (Sameh) Soror, Dr. O. (Osama) Marzouk
Representative in IUTAM: Prof. M.K. (Mohamed) Ismail

Estonia (1992)

Estonian Committee for Mechanics
Akadeemia tee 21, EE-12618 Tallinn
President/Chair: Prof. A. (Andrus) Salupere
Representative in IUTAM: Prof. A. (Andrus) Salupere

Finland (1952)

The Finnish National Committee on Mechanics
Tampere University, Attent. Prof. Reijo Kouhia, PO Box 600, FI-33014 Tampere
President/Chair: Prof. R. (Reijo) Kouhia
Secretary: Prof. J. (Jarkko) Niiranen
Contact: Prof. R. (Reijo) Kouhia
Representatives in IUTAM: Prof. R. (Reijo) Kouhia, Prof. J. (Jarkko) Niiranen

France (1949)

Comité National Français de Mécanique, Académie des Sciences
23, quai Conti, F-75006 Paris
President/Chair: Prof. P. (Pierre) Suquet
Secretary: Prof. J. (Jacques) Magnaudet
Representatives in IUTAM: Prof. S. (Samuel) Forest, Prof. P. (Patrick) Huerre,
Prof. D. (Djimedjo) Kondo, Prof. S. (Stéphane) Popinet

Georgia (2000)

Georgian National Committee of Theoretical and Applied Mechanics
I. Vekua Institute of Applied Mathematics of Iv. Javakhishvili Tbilisi State University
2 University Str., 0186 Tbilisi
President/Chair: Prof. G. (George) Jaiani
Representative in IUTAM: Prof. G. (George) Jaiani

Germany (1950)

Gesellschaft für angewandte Mathematik und Mechanik/Deutsches Komitee für
Mechanik (GAMM/DEKOMECH)
TU Dortmund University, Institute of Mechanics, Leonhard-Euler-Strasse 5,
D-44227 Dortmund
President/Chair: Prof. A. (Andreas) Menzel
Representatives in IUTAM: Prof. M. (Marc) Avila, Prof. S. (Stefan) Hartmann,
Prof. J. (Jörg) Schumacher, Prof. R. (Robert) Seifried

Greece (1979)

Hellenic Society for Theoretical and Applied Mechanics
National Technical University of Athens, Mechanics Division
Zographou Campus, GR-15773, Athens
President/Chair: Prof. G.E. (Georgios) Stavroulakis
Secretary: Prof. G.C. (George) Tsiatas
Representative in IUTAM: Prof. G.E. (Georgios) Stavroulakis

Hungary (1948)

Hungarian National Committee for IUTAM
Department of Applied Mechanics, Budapest University of Technology and Economics
Müegyetem rkp. 3, H-1521 Budapest
President/Chair: Prof. G. (Gábor) Stépán
Secretary: Dr. P. (Peter) Varkonyi
Representative in IUTAM: Prof. G. (Gábor) Stépán

India (1950)

National Committee for Theoretical and Applied Mechanics of the Indian National Science Academy
Bahadur Shah Zafar Marg, 110 002 New Delhi
President/Chair: Prof. V.D. Sharma
Contact: Prof. S. Gopalakrishnan
Representatives in IUTAM: Prof. S. (Santosh) Kapuria, Prof. S. (Sanjay) Mittal,
Prof. G.P. Rajasekhar

Ireland (1984)

Irish National Committee for Mathematical Sciences
Royal Irish Academy, 19 Dawson Street, Dublin 2
Contact: Y. (Yvonne) Graham
Representative in IUTAM: Prof. M.D. (Michael) Gilchrist

Israel (1950)

Israel Society for Theoretical and Applied Mechanics (ISTAM)
Faculty of Mechanical Engineering, Technion-Israel Institute of Technology
32000 Haifa
President/Chair: Prof. R. (Reuven) Segev
Contact: Prof. M.B. (Miles) Rubin
Representatives in IUTAM: Prof. M.B. (Miles) Rubin, Prof. R. (Reuven) Segev

Italy (1949)

Associazione Italiana di Meccanica Teorica ed Applicata
Piazza Leonardo da Vinci 32, I-20133 Milano
President/Chair: Prof. S. (Stefano) Lenci
Secretary: Prof. S. (Sandra) Carillo
Contact: Prof. S. (Stefano) Lenci
Representatives in IUTAM: Prof. D. (Davide) Bigoni, Prof. A. (Alessandro) Bottaro,
Dr. E. (Enrico) De Bernardis, Prof. G. (Giuseppe) Rega

Japan (1951)

The National Committee for Theoretical and Applied Mechanics
Science Council of Japan, 7- 22-34 Roppongi, Minato-ku, 106-8555 Tokyo
President/Chair: Prof. K. (Koichi) Hishida
Secretary: Prof. M. (Masaharu) Kameda
Contact: Prof. K. (Kikuo) Kishimoto
Representatives in IUTAM: Prof. K. (Koichi) Hishida, Prof. M. (Muneo) Hori,
Prof. K. (Kikuo) Kishimoto, Prof. O. (Osamu) Sano

Korea, Republic of (2012/1989)

Korean Committee for Theoretical and Applied Mechanics
c/o The Korean Society of Mechanical Engineers
Room 702, KSTC New Bld., 635-4, Yeogsam-dong, Kangnam-ku, 135-703 Seoul
President/Chair: Prof. H.D. (Heuy Dong) Kim
Contact: Prof. S. (Simon) Song
Representative in IUTAM: Prof. H.J. (Hyung Jin) Sung

Mexico (2008)

Mexican Academy of Sciences
Km 23.5 Carretera Federal México-Cuernavaca, "Casa Tlalpan", Av. Cipreses s/n Col.
San Andrés Totoltepec, Tlalpan, 14400 Mexico
Representative in IUTAM: Prof. E. (Eduardo) Ramos

Netherlands (1952)

Netherlands Mechanics Committee
c/o Eindhoven University of Technology, Department of Mechanical Engineering
P.O. Box 513, NL 5600 MB Eindhoven
President/Chair: Prof. G.J.F. (GertJan) van Heijst
Secretary: Prof. D.H. (Dick) van Campen
Representatives in IUTAM: Prof. G.J.F. (GertJan) van Heijst, Prof. P. (Patrick) Onck

New Zealand (1979)

Royal Society Te Apārangi
P.O. Box 598, 6140 Wellington
Contact: Prof. R. (Rosalind) Archer
Representative in IUTAM: Prof. R. (Rosalind) Archer

Norway (1949)

National Committee on Theoretical and Applied Mechanics
Norwegian Acad. Sciences and Letters, Dept. of Maths, University of Oslo
P.O. Box 1053, Blindern, N-0316 Oslo 3
President/Chair: Prof. J. (John) Grue
Contact: Prof. J. (John) Grue
Representative in IUTAM: Prof. J. (John) Grue

Poland (1952)

Committee for Mechanics of the Polish Academy of Sciences

Pawinskiego 5B, 02-106 Warsaw

President/Chair: Prof. S. (Stanislaw) Stupkiewicz

Contact: Prof. H. (Henryk) Petryk

Representatives in IUTAM: Prof. T. (Tadeusz) Burczyński, Prof. H. (Henryk) Petryk

Portugal (1968)

Portuguese Society of Theoretical, Applied and Computational Mechanics

Laboratorio Nacional de Engenharia Civil, Avenida do Brasil 101, 1700-066 Lisboa

President/Chair: Prof. J. (Jose) Cesar de Sa

Contact: Prof. C.A.B. (Carlos) Pina

Representative in IUTAM: Prof. D.R.Z. (Dinar) Camotim

Romania (1956)

Romanian Academy, Department of Mathematics

Romanian National Committee of Theoretical and Applied Mechanics

Calea Victoriei 125, 71102 Bucharest

President/Chair: Prof. H. (Horia) Ene

Representative in IUTAM: Prof. H. (Horia) Ene

Russia (1992/1956)

Russian National Committee on Theoretical and Applied Mechanics

Prospekt Vernadskogo 101 : 1, 119526 Moscow

President/Chair: Prof. I.G. (Irina) Goryacheva

Secretary: Prof. V. (Vladimir) Karev

Representatives in IUTAM: Prof. F.L. (Felix) Chernousko, Prof. I.G. (Irina) Goryacheva,

Prof. V.A. (Vladimir) Levin, Prof. N.F. (Nikita) Morozov

Saudi Arabia (1988)

King Abdulaziz City for Science and Technology

Directorate of Technology and International Cooperation

P.O. Box 6086, 11442 Riyadh

President/Chair: Dr. M.I. (Mohammed ibn Ibrahim) Al-Suwaiyel

Contact: Mr. F.S. (Fahad) Huraib, Dr. M.I. (Mohammed ibn Ibrahim) Al-Suwaiyel

Representative in IUTAM: Dr. M.I. (Mohammed ibn Ibrahim) Al-Suwaiyel

Serbia (2006/1952)

Serbian Society of Mechanics

Kneza Milosa 9/1, 11000 Belgrade

President/Chair: Prof. N. (Nenad) Filipovic

Secretary: Dr. D. (Dalibor) Nikolic

Representative in IUTAM: Prof. N. (Nenad) Filipovic

Slovenia (1994)

Slovene Mechanics Society
Jamova 2, 1000 Ljubljana
President/Chair: Prof. J. (Janko) Slavič
Secretary: Dr. M. (Martin) Česnik
Representative in IUTAM: Prof. J. (Janko) Slavič

South Africa (1994)

National Research Foundation (NRF)
South African Association for Theoretical and Applied Mechanics (SAAM)
South African ICSU Secretariat, P.O. Box 2600, 0001 Pretoria
President/Chair: Dr. S. (Sebastian) Skatulla
Contact: Dr. S. (Sebastian) Skatulla
Representative in IUTAM: Dr. S. (Sebastian) Skatulla

Spain (2018/1950)

Sociedad Española de Mecánica Teórica y Aplicada (SEMTA)
ETSI, Camino de los descubrimientos s/n, 41092, Sevilla
President/Chair: Prof. P. (Pilar) Ariza
Representative in IUTAM: Prof. P. (Pilar) Ariza

Sweden (1950)

Swedish National Committee for Mechanics
Lund University, Avdelning för Hållfasthetslära, Box 118, SE-22100 Lund
President/Chair: Prof. A. (Anders) Klarbring
Secretary: Prof. H. (Hakan) Hallberg
Representatives in IUTAM: Prof. P. (Peter) Gudmundson, Prof. D. (Dan) Henningson,
Prof. S. (Staffan) Lundström,

Switzerland (1950)

Board of the Federal Institutes of Technology
(Rat der Eidgenössischen Technischen Hochschulen)
ETH-Zentrum, CH-8092 Zürich
President/Chair: Prof. M. (Michael) Hengartner
Contact: Prof. J. (Jürg) Dual, Prof. P.A. (Peter) Monkewitz
Representatives in IUTAM: Prof. J. (Jürg) Dual, Prof. P.A. (Peter) Monkewitz

Turkey (1977)

Turkish National Committee of Theoretical and Applied Mechanics
Istanbul Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Maslak 80626, Istanbul
President/Chair: Prof. M.H. (Mehmet) Omurtag
Secretary: Prof. M.A. (Mehmet Ali) Tasdemir
Contact: Prof. E.S. (Erdogan) Suhubi
Representative in IUTAM: Prof. E.S. (Erdogan) Suhubi

UK (1948)

The Royal Society, UK Panel for IUTAM
6 Carlton House Terrace, SW1Y 5AG London

President/Chair: Prof. N.A. (Norman) Fleck

Secretary: Prof. R. (Rich) Kerswell

Representatives in IUTAM: Prof. A. (Alan) Cocks, Prof. N.A. (Norman) Fleck,
Prof. A. (Anne) Juel, Prof. R. (Rich) Kerswell

Ukraine (1995)

National Committee of Ukraine on Theoretical and Applied Mechanics
S.P.Timoshenko Institute of Mechanics, 3 Nesterov Str., 03680 Kyiv

President/Chair: Prof. A.N. (Alexandr) Guz

Secretary: Prof. J.J. (Jeremiah) Rushchitsky

Representative in IUTAM: Prof. A.N. (Alexandr) Guz

USA (1949)

The U.S. National Committee for Theoretical and Applied Mechanics of the National
Academies of Science, Engineering and Medicine
500 Fifth Street NW, Washington, DC 20001

President/Chair: Prof. B. (Beverley) McKeon

Secretary: Prof. L. (Linda) Franzoni

Representatives in IUTAM: Prof. K. (Krishnaswamy) Ravi-Chandar,
Prof. H. (Horacio) Espinosa, Prof. L. (Linda) Franzoni, Prof. B. (Beverley) McKeon,
Prof. G. (Gareth) McKinley

Viet Nam (1990)

Vietnamese Association of Mechanics (VAM)

Hoi Co Hoc Vietnam, 264 Doi Can, Hanoi

President/Chair: Prof. N. (Nguyen) Tien Khiem

Secretary: Prof. T. (Tran) Van Lien

Contact: Prof. H. (Hung) Nguyen-Xuan

Representative in IUTAM: Prof. H. (Hung) Nguyen-Xuan

Affiliated Organizations

CISM (1970)

International Centre for Mechanical Sciences
Palazzo del Torso, Piazza Garibaldi, I-33100 Udine, Italy
Rectors of CISM: Prof. Elisabeth Guazzelli,
Prof. Alfredo Soldati and Prof. Wolfgang A. Wall
President/Chair: Mario Pezzetta
Secretary: Prof. B.A. (Bernhard) Schrefler
Contact: Prof. B.A. (Bernhard) Schrefler
Representative of CISM in IUTAM: Prof. B.A. (Bernhard) Schrefler
Representative of IUTAM in CISM: Prof. F. (Frédéric) Dias

ICHMT (1972)

International Centre for Heat and Mass Transfer
Mechanical Engineering Department E-104, Middle East Technical University,
Dumlupınar Bulvarı No:1, 06800 Çankaya Ankara, Turkey
President/Chair: Prof. T.W. (Terrence) Simon
Secretary: Prof. I. (Ilker) Tari
Contact: Prof. I. (Ilker) Tari
Representative of ICHMT in IUTAM: Prof. F. (Faruk) Arinc
Representative of IUTAM in ICHMT: Dr. R. (Rudolf) Dvorák

ICR (1974)

International Committee on Rheology
President/Chair: Prof. H. (Hiroshi) Watanabe
Secretary: Prof. G. (Gerald) Fuller
Contact: Prof. G. (Gerald) Fuller
Representative of ICR in IUTAM: Prof. L.G. (Gary) Leal
Representative of IUTAM in ICR: Prof. G. (Gareth) McKinley

IAVSD (1977)

International Association for Vehicle System Dynamics
Institute of Mechanics and Mechatronics, TU Wien, Getreidemarkt 9, 1060, Vienna,
Austria
President/Chair: Prof. T. (Tim) Gordon
Secretary: Prof. M. (Manfred) Plöchl
Representative of IAVSD in IUTAM: Prof. M. (Mats) Berg
Representative of IUTAM in IAVSD: Prof. R. (Robert) Seifried

EUROMECH (1978)

European Mechanics Society

4 impasse Nikola Tesla, CS 40006, 13453, Marseille Cedex 13, France

President/Chair: Prof. M.G.D. (Marc) Geers

Secretary: Prof. J. (Jacques) Magnaudet

Representative of EUROMECH in IUTAM: Prof. P. (Patrick) Huerre

Representative of IUTAM in EUROMECH: Prof. N.A. (Norman) Fleck

ISIMM (1978)

International Society for the Interaction of Mechanics and Mathematics

President/Chair: Prof. G. (Giuseppe) Saccomandi

Secretary: Prof. G. (Giuseppe) Tomassetti

Representative of ISIMM in IUTAM: Prof. A. (Alain) Goriely

Representative of IUTAM in ISIMM: Prof. F.L. (Felix) Chernousko

ICF (1978)

International Congress on Fracture

Research Institute for Strength and Fracture of Materials, Tohoku University,
Sendai, Japan

President/Chair: Prof. R.M. (Robert) McMeeking

Secretary: Prof. A.T. (Toshimitsu) Yokobori, Jr.

Representative of ICF in IUTAM: Prof. L. (Leslie) Banks-Sills

Representative of IUTAM in ICF: Prof. J.B. (Jean-Baptiste) Leblond

ICM (1982)

International Conference on the Mechanical Behaviour of Materials

President/Chair: Dr. R. (Raj) Das

Secretary: Prof. Y. (Yoshihiko) Uematsu

Representative of ICM in IUTAM: Prof. S.W. (Soo Woo) Nam

Representative of IUTAM in ICM: Prof. C. (Christian) Niordson

AFMC (1982)

Asian Fluid Mechanics Committee

Center for Atmospheric and Oceanic Sciences

Indian Institute of Science, 560012 Bangalore, India

President/Chair: Prof. S. (Song) Fu

Representative of AFMC in IUTAM: Prof. G.S. (Ganapati Shankar) Bhat

Representative of IUTAM in AFMC: Prof. F. (Frédéric) Dias

IACM (1984)

International Association for Computational Mechanics
International Center for Numerical Methods in Engineering,
Edificio C-1, Gran Capitán s/n, E-08034 Barcelona, Spain
President/Chair: Prof. A. (Antonio) Huerta
Secretary: Prof. J. (John) Dolbow
Representative of IACM in IUTAM: Prof. P. (Pierre) Ladevèze
Representative of IUTAM in IACM: Prof. R. (Eduardo) de Arantes e Oliveira

CACOFD (1992-2010)

Caribbean Congress of Fluid Dynamics
(the acronym CACOFD has been changed into LACCOTAM in 2010 – see LACCOTAM below)

IABEM (1994)

International Association for Boundary Element Methods
President/Chair: Prof. N. (Naoshi) Nishimura
Representative of IABEM in IUTAM: Prof. N. (Naoshi) Nishimura
Representative of IUTAM in IABEM: Prof. N. (Naoshi) Nishimura

ISSMO (1996)

International Society for Structural and Multidisciplinary Optimization
Structural Engineering Department, University of California San Diego,
9500 Gilman Drive, Mail Code 0085, CA 92093, San Diego, USA
President/Chair: Prof. W. (Wei) Chen
Secretary: Prof. H.A. (Alicia) Kim
Contact: Prof. N. (Niels) Olhoff
Representative of ISSMO in IUTAM: Prof. J.K. (James) Guest
Representative of IUTAM in ISSMO: Prof. N. (Niels) Olhoff

HYDROMAG (1996)

International Association for Hydromagnetic Phenomena and Applications
Applied Mathematics Research Centre, Coventry University,
Priory Street, Coventry, CV1 5FB, UK
President/Chair: Prof. A. (Alban) Pothérat
Contact: Prof. A. (Alban) Pothérat
Representative of HYDROMAG in IUTAM: Prof. A. (Alban) Pothérat
Representative of IUTAM in HYDROMAG: Prof. H.K. (Keith) Moffatt

IIAV (1997)

International Institute of Acoustics and Vibration
Dept. of Mechanical Engineering, Auburn University,
201 Ross Hall, Auburn, AL 36849 USA
President/Chair: Prof. E. (Eleonora) Carletti
Secretary: Mr. R.M. (Rupert) Thornely-Taylor
Contact: Prof. M.J. (Malcolm) Crocker
Representative of IIAV in IUTAM: Prof. M.J. (Malcolm) Crocker
Representative of IUTAM in IIAV: Prof. P. (Peter) Eberhard

ICA (1998)

International Commission for Acoustics
President/Chair: Prof. M. (Mark) Hamilton
Secretary: Prof. A. (Antonino) Di Bella
Contact: Prof. A. (Antonino) Di Bella
Representative of ICA in IUTAM: Prof. A. (Andrew) Norris
Representative of IUTAM in ICA: Prof. A. (Andrew) Norris

ICTS (2002)

International Congresses on Thermal Stresses
Department of Mechanical Science & Engineering, University of Illinois Urbana-Champaign, USA
President/Chair: Prof. M. (Martin) Ostoja-Starzewski
Secretary: Prof. K.K. (Kumar) Tamma
Representative of ICTS in IUTAM: Prof. M. (Martin) Ostoja-Starzewski
Representative of IUTAM in ICTS: Prof. M. (Masato) Abe

BICTAM (2010)

Beijing International Center for Theoretical and Applied Mechanics
Institute of Mechanics, Chinese Academy of Sciences,
15 Beisihuanxi Road, 100190 Beijing, China
President/Chair: Prof. J. (Jiachun) Li
President/Chair: Prof. D. (Daining) Fang
Representative of BICTAM in IUTAM: Prof. D. (Daining) Fang
Representative of IUTAM in BICTAM: Prof. N. (Narinder) Gupta

LACCOTAM (2010)

Latin American and Caribbean Conference on Theoretical and Applied Mechanics
The Department of Math and Computer Science, The University of the West Indies,
St. Augustine, Trinidad, West Indies
President/Chair: Prof. H. (Harold) Ramkissoon
Secretary: Dr. D. (Donna) Comissiong
Contact: Prof. H. (Harold) Ramkissoon
Representative of LACCOTAM in IUTAM: Dr. S.R. (Sreedhara Rao) Gunakala
Representative of IUTAM in LACCOTAM: Prof. A.P.S. (Atila) Freire

IASCM (2014)

International Association for Structural Control and Monitoring

President/Chair: Prof. H. (Hui) Li

Secretary: Prof. S. (Sami) Masri

Representative of IASCM in IUTAM: Prof. S. (Sami) Masri

Representative of IUTAM in IASCM: Prof. R. (Robert) Seifried

IMSD (2014)

International Association for Multibody System Dynamics

President/Chair: Prof. J. (Jorge) Ambrosio

Secretary: Prof. J. (Javier) Cuadrado

Representative of IMSD in IUTAM: Prof. P. (Peter) Eberhard

Representative of IUTAM in IMSD: Prof. W. (Werner) Schiehlen

WCB (2016)

World Council of Biomechanics

President/Chair: Prof. P. (Peter) Hunter

Secretary: Prof. L. (Lynne) Bilston

Representative of WCB in IUTAM: Prof. P. (Peter) Hunter

Representative of IUTAM in WCB: Prof. T.J. (Timothy) Pedley

Members of the General Assembly

<i>Member</i>	<i>Representative of</i>	<i>Remarks</i>
Dr. M.I. (Mohammed ibn Ibrahim) Al-Suwaiyel	Saudi Arabia	
Prof. M. (Marco) Amabili	Canada	
Prof. R. (Rosalind) Archer	New Zealand	
Prof. P. (Pilar) Ariza	Spain	
Prof. N. (Nadine) Aubry		Bureau member
Prof. M. (Marc) Avila	Germany	
Prof. Y. (Yilong) Bai		Member-at-Large
Prof. K. (Kamran) Behdinan	Canada	
Prof. D. (Davide) Bigoni	Italy	
Prof. A. (Alessandro) Bottaro	Italy	
Prof. M. (Mark) Bradford	Australia	
Prof. T. (Tadeusz) Burczyński	Poland	
Prof. D.R.Z. (Dinar) Camotim	Portugal	
Prof. F.L. (Felix) Chernousko	Russia	
Prof. A. (Alan) Cocks	UK	
Dr. E. (Enrico) De Bernardis	Italy	
Prof. W. (Wim) Desmet	Belgium	
Prof. J. (Jürg) Dual	Switzerland	
Prof. P. (Peter) Eberhard		Member-at-Large Representative of IMSD
Prof. H. (Horia) Ene	Romania	
Prof. H. (Horacio) Espinosa	USA	
Prof. D. (Daining) Fang	China	Representative of BICTAM
Prof. N. (Nenad) Filipovic	Serbia	
Prof. N.A. (Norman) Fleck	UK	Bureau member
Prof. J.M. (Maciej) Floryan	Canada	
Prof. S. (Samuel) Forest	France	
Prof. L. (Linda) Franzoni	USA	
Prof. A.P.S. (Atila) Freire		Bureau member
Prof. H. (Huajian) Gao		Chair SP Solids
Prof. M.D. (Michael) Gilchrist	Ireland	
Prof. I.G. (Irina) Goryacheva	Russia	Bureau member
Prof. J. (John) Grue	Norway	
Prof. P. (Peter) Gudmundson	Sweden	
Prof. P. (Patrick) Guillaume	Belgium	
Prof. A.N. (Alexandr) Guz	Ukraine	
Prof. S. (Stefan) Hartmann	Germany	
Prof. G.W. (Guowei) He	China	
Prof. G.J.F. (GertJan) van Heijst	Netherlands	

Member	Representative of	Remarks
Prof. D. (Dan) Henningson	Sweden	Bureau member
Prof. K. (Koichi) Hishida	Japan	
Prof. M. (Muneo) Hori	Japan	
Prof. S.-S. (Shu-San) Hsiau	China-Taipei	
Prof. P. (Patrick) Huerre	France	Representative of EUROMECH
Prof. M.K. (Mohamed) Ismail	Egypt	
Prof. G. (George) Jaiani	Georgia	
Prof. A. (Anne) Juel	UK	
Prof. S. (Santosh) Kapuria	India	
Prof. R. (Rich) Kerswell	UK	
Prof. K. (Kikuo) Kishimoto	Japan	Bureau member
Prof. A. (Alfred) Kluwick	Austria	
Prof. D. (Djimedjo) Kondo	France	
Prof. R. (Reijo) Kouhia	Finland	
Prof. V.A. (Vladimir) Levin	Russia	
Prof. M. (Marilyn) Lightstone	Canada	
Prof. D. (Detlef) Lohse		Bureau member Chair SP Fluids
Prof. J.B.R. (Juliana) Loureiro	Brazil	
Prof. T.J. (Tianjian) Lu	China	
Prof. F. (Fernando) Lund	Chile	
Prof. S. (Staffan) Lundström	Sweden	
Prof. G. (Giulio) Maier		Member-at-Large
Prof. B. (Beverley) McKeon	USA	
Prof. G. (Gareth) McKinley	USA	
Prof. R.M. (Robert) McMeeking		Member-at-Large
Prof. M.A.F. (Marcello) de Medeiros	Brazil	
Prof. S. (Sanjay) Mittal	India	Secretary CC
Prof. H.K. (Keith) Moffatt		Member-at-Large
Prof. P.A. (Peter) Monkewitz	Switzerland	
Prof. N.F. (Nikita) Morozov	Russia	
Prof. H. (Hung) Nguyen-Xuan	Viet Nam	
Prof. J. (Jarkko) Niiranen	Finland	
Prof. C. (Christian) Niordson	Denmark	
Prof. M. (Miloslav) Okrouhlik	Czech Republic	
Prof. N. (Niels) Olhoff		Member-at-Large
Prof. P. (Patrick) Onck	Netherlands	
Prof. T.J. (Timothy) Pedley		Member-at-Large
Prof. H. (Henryk) Petryk	Poland	Bureau member
Prof. S. (Stéphane) Popinet	France	

Member	Representative of	Remarks
Prof. S. (Stefan) Radev	Bulgaria	
Prof. G.P. (G.P.) Rajasekhar	India	
Prof. E. (Eduardo) Ramos	Mexico	
Prof. K. (Krishnaswamy) Ravi-Chandar	USA	
Prof. G. (Giuseppe) Rega	Italy	
Prof. M.B. (Miles) Rubin	Israel	
Prof. J.E. (John) Sader	Australia	
Prof. A.V. (Avetik) Sahakyan	Armenia	<i>Observer</i>
Prof. J. (Jean) Salençon		Member-at-Large
Prof. A. (Andrus) Salupere	Estonia	
Prof. O. (Osamu) Sano	Japan	
Prof. W. (Werner) Schiehlen		Member-at-Large
Prof. B.A. (Bernhard) Schrefler		Member-at-Large Representative of CISM
Prof. J. (Jörg) Schumacher	Germany	
Prof. R. (Reuven) Segev	Israel	
Prof. R. (Robert) Seifried	Germany	
Dr. S. (Sebastian) Skatulla	South Africa	
Prof. J. (Janko) Slavič	Slovenia	
Prof. G.E. (Georgios) Stavroulakis	Greece	
Prof. G. (Gábor) Stépán	Hungary	
Prof. E.S. (Erdogan) Suhubi	Turkey	
Prof. Q.-P. (Qing-Ping) Sun	China-Hong Kong	
Prof. H.J. (Hyung Jin) Sung	Republic of Korea	
Prof. J.N. (Jens Nørkær) Sørensen	Denmark	
Prof. G. (Goran) Turkalj	Croatia	
Prof. V. (Viggo) Tvergaard		Member-at-Large
Prof. D.V.H. (Dirk) Vandepitte	Belgium	
Prof. W.-C. (Wei-Chung) Wang	China-Taipei	
Prof. W. (Wei) Yang	China	
Prof. X.J. (Xiaojing) Zheng	China	

Observers to the General Assembly

<i>Name</i>	<i>Country</i>	<i>Representative of</i>
Prof. F. (Faruk) Arinc	Turkey	ICHMT
Prof. L. (Leslie) Banks-Sills	Israel	ICF
Prof. M. (Mats) Berg	Sweden	IAVSD
Prof. G.S. (Ganapati Shankar) Bhat	India	AFMC
Prof. M.J. (Malcolm) Crocker	USA	IIAV
Prof. A. (Alain) Goriely	UK	ISIMM
Prof. J.K. (James) Guest	USA	ISSMO
Dr. S.R. (Sreedhara Rao) Gunakala	Trinidad & Tobago	LACCOTAM
Prof. P. (Peter) Hunter	New Zealand	WCB
Prof. P. (Pierre) Ladevèze	France	IACM
Prof. L.G. (Gary) Leal	USA	ICR
Prof. S. (Sami) Masri	USA	IASCM
Prof. S.W. (Soo Woo) Nam	Republic of Korea	ICM
Prof. N. (Naoshi) Nishimura	Japan	IABEM
Prof. A. (Andrew) Norris	USA	ICA
Prof. M. (Martin) Ostoja-Starzewski	USA	ICTS
Prof. A. (Alban) Pothérat	UK	HYDROMAG

Members of the Congress Committee

*Year indicates end of term

<i>Member</i>	<i>Country</i>	<i>Year*</i>	<i>Remarks</i>
Prof. P. (Pilar) Ariza	Spain	2024	
Prof. E. (Ellen) Arruda	USA	2024	
Prof. L. (Leslie) Banks-Sills	Israel	2024	Member of XCCC
Prof. D. (Davide) Bigoni	Italy	2022	
Prof. L.C. (Catherine) Brinson	USA	2024	
Prof. S. (Shiyi) Chen	China	2024	Member of XCCC
Prof. A. (Alan) Cocks	UK	2022	
Prof. A. (Alberto) Corigliano	Italy	2024	Member of XCCC
Prof. A. (Anne) De Wit	Belgium	2022	
Prof. N.A. (Norman) Fleck	UK	2024	Chair of XCCC
Prof. J.M. (Maciej) Floryan	Canada	2024	
Prof. S. (Samuel) Forest	France	2024	
Prof. P. (Peter) Frick	Russia	2024	
Prof. M.D. (Michael) Gilchrist	Ireland	2022	
Prof. E. (Elisabeth) Guazzelli	France	2024	
Prof. S. (Stefan) Hartmann	Germany	2024	
Prof. P. (Peter) Hunter	New Zealand	2024	
Prof. A. (Anne) Juel	UK	2022	
Prof. H.D. (Heuy Dong) Kim	Republic of Korea	2024	Member of XCCC
Prof. P.F. (Paul) Linden	UK	2024	Member of XCCC
Prof. D. (Detlef) Lohse	Netherlands	2022	
Prof. G. (Gareth) McKinley	USA	2024	
Prof. S. (Sanjay) Mittal	India	2024	Secretary of XCCC
Prof. H. (Henryk) Petryk	Poland	2024	
Prof. S. (Stéphane) Popinet	France	2024	
Prof. G. (Gherhardt) Ribatski	Brazil	2024	
Prof. M.V. (Maria Vittoria) Salvetti	Italy	2024	
Prof. A. (Alfredo) Soldati	Austria	2024	
Prof. K.J. (Kathleen) Stebe	USA	2024	
Prof. S. (Shu) Takagi	Japan	2022	
Prof. W.-C. (Wei-Chung) Wang	China-Taipei	2022	
Prof. J.X. (Jianxiang) Wang	China	2022	
Prof. H. (Hiroshi) Yabuno	Japan	2024	
Prof. X.J. (Xiaoqing) Zheng	China	2024	

Members of the Symposia Panels

In 1977 the Bureau of IUTAM set up two panels charged with the duty of scanning proposals made for IUTAM Symposia in the fields of fluid and solid mechanics. In 1992 that duty was extended to include scanning of proposals for IUTAM Summer Schools.

Symposia Panel for Fluid Mechanics:			
<i>Member</i>	<i>Country</i>	<i>Year*</i>	<i>Remarks</i>
Prof. R. (Rama) Govindarajan	India	2022	
Prof. E. (Elisabeth) Guazzelli	France	2024	
Prof. A. (Ann) Karagozian	USA	2022	
Prof. H. (Hua) Liu	China	2024	
Prof. D. (Detlef) Lohse	Netherlands	2024	Chair
Symposia Panel for Solid Mechanics			
<i>Member</i>	<i>Country</i>	<i>Year*</i>	<i>Remarks</i>
Prof. L. (Leslie) Banks-Sills	Israel	2022	
Prof. A. (Alexander) Belyaev	Russia	2024	
Prof. D. (Davide) Bigoni	Italy	2024	
Prof. H. (Huajian) Gao	Singapore	2024	Chair
Prof. T.J. (Tianjian) Lu	China	2022	

*Year indicates end of term

Donations in 2020

Donations given to IUTAM Symposia are recorded under the heading “Financial Support” of the Reports of Symposia held in 2020.

IUTAM Representation in ISC and its Scientific Committees

<i>Acronym</i>	<i>Organization/Scientific Committee</i>	<i>Representative of IUTAM</i>
ISC	International Science Council	Prof. N.A. Fleck
CODATA	Committee on Data	Prof. F. Chinesta
COSPAR	Committee on Space Research	Prof. G. Ravichandran
SCOR	Scientific Committee on Oceanic Research	<i>To be nominated</i>

Reports of the IUTAM Symposia held in 2020

Due to the COVID-19 pandemic, no IUTAM Symposium was held in 2020. One IUTAM Symposium scheduled for 2020 was canceled, while seven others and an IUTAM Special Event were postponed to 2021 or 2022.

Reports of the IUTAM Summer Schools held in 2020

Due to the COVID-19 pandemic, the IUTAM-CISM Summer School scheduled for 2020 was postponed to 2022.

ICTAM 2020 Milan

Due to the COVID-19 pandemic, the 25th International Congress of Theoretical and Applied Mechanics (ICTAM 2020) was postponed by President Alberto Corigliano and his local organizing committee to 22-27 August 2021 and renamed ICTAM 2020+1. It will be held in a fully virtual format.

Summary Record of the General Assembly Meeting 2020

Summary Record of the General Assembly of IUTAM virtual meeting on 25 and 26 August 2020

The General Assembly of IUTAM convened remotely in 2020. The schedule of sessions was as follows:

Tuesday, 25 August 2020

9:00 – 12:00 (Boston time)

General Assembly: 1st session

Wednesday, 26 August 2020

9:00 – 12:00 (Boston time)

General Assembly: 2nd session

Attendance:

Members with voting rights:

M. Amabili (Canada), P. Ariza (Spain), N. Aubry (USA), M. Avila (Germany), Y. Bai (China, Member-at-Large), K. Behdinan (Canada), D. Bigoni (Italy), A. Bottaro (Italy), F.L. Chernousko (Russia), A. Cocks (UK), E. De Bernardis (Italy), J. Dual (Switzerland), P. Eberhard (Germany), H. Espinosa (USA), D. Fang (China), N.A. Fleck (UK), J.M. Floryan (Canada), S. Forest (France), L. Franzoni (USA), A.P.S. Freire (Brazil), H. Gao (Singapore), M.D. Gilchrist (Ireland), I.G. Goryacheva (Russia), P. Guillaume (Belgium), S. Hartmann (Germany), G.W. He (China), D. Henningson (Sweden), K. Hishida (Japan), M. Hori (Japan), S.-S. Hsiau (China-Taipei), P. Huerre (France), G. Jaiani (Georgia), A. Juel (UK), R. Kerswell (UK), K. Kishimoto (Japan), D. Kondo (France), R. Kouhia (Finland), V.A. Levin (Russia), M. Lightstone (Canada), D. Lohse (Netherlands), J.B.R. Loureiro (Brazil), T.J. Lu (China), F. Lund (Chile), S. Lundström (Sweden), B. McKeon (USA), G. McKinley (USA), R.M. McMeeking (USA), M.A.F. de Medeiros (Brazil), S. Mittal (India), H.K. Moffatt (UK, Member-at-Large), P. Monkewitz (Switzerland), N.F. Morozov (Russia), H. Nguyen-Xuan (Viet Nam), J. Niiranen (Finland), C. Niordson (Denmark), P. Onck (Netherlands), T.J. Pedley (UK, Member-at-Large), H. Petryk (Poland), S. Popinet (France), G.P. Raja Sekhar (India), E. Ramos (Mexico), K. Ravi-Chandar (USA), G. Rega (Italy), M.B. Rubin (Israel), J. Salençon (France, Member-at-Large), A. Salupere (Estonia), O. Sano (Japan), W. Schiehlen (Germany, Member-at-Large), B.A. Schrefler (Italy), J. Schumacher (Germany), R. Segev (Israel), R. Seifried (Germany), S. Skatulla (South Africa), J. Slavič (Slovenia), J.N. Sørensen (Denmark), P. Stahle (Sweden), G.E. Stavroulakis (Greece), G. Stépán (Hungary), H.J. Sung (Republic of Korea), G. Turkalj (Croatia), V. Tvergaard (Denmark), D.V.H. Vandepitte (Belgium), W.-C. Wang (China-Taipei), L. van Wijngaarden (Netherlands, Member-at-Large), X.J. Zheng (China)

Non-voting observers:

L. Banks-Sills (Israel, representative of ICF), A. Ferreras (USA, representative of NAS)

Per Article V of IUTAM's Statutes, no proxies were allowed at the virtual meeting.

Agenda Tuesday, 25 August 2020, 9:00 – 12:00 (Boston time)

1. Opening of the meeting by the President
Summary Record of the General Assembly in Boston, USA, on 23-24/07/2018 (IUTAM Report 2018, pp. 108-128)
2. Brief report by the Secretary-General
3. Brief report by the Treasurer on financial matters
4. Preliminary discussion on annual dues
5. Report by the Secretary of the Congress Committee
6. Matters concerning Adhering Organizations
7. Matters concerning Associate Organizations
8. Matters concerning Affiliated Organizations
9. Report of the Electoral Committee (Bureau candidates)
10. Proposals for election of members of the Congress Committee
11. Proposals for election of Members-at-Large
12. Proposals for election of members of Symposia Panels
13. Preliminary discussion on future IUTAM Symposia and Summer Schools.
Brief reports from Solids and Fluids Panels
14. Discussion on registration of IUTAM

Agenda Wednesday, 26 August 2020, 9:00 – 12:00 (Boston time)

15. Future IUTAM endorsed events
16. Continued discussion and final decision regarding future IUTAM Symposia
17. Continued discussion and final decision regarding future IUTAM Summer Schools on Mechanics
18. Continued discussion and final decision regarding annual dues
19. Election of Officers and members of the Bureau
20. Election of Members-at-Large
21. Election of members of the Congress Committee
22. Election of members of Symposia Panels
23. Date and venue of the next General Assembly meeting
24. Any other business

Proceedings of the General Assembly

Item 1 – Opening of the meeting by the President

The President, Professor Nadine Aubry, welcomed all members and observers. Then the President formally opened the meeting. The Agenda was adopted. The President explained the rules of voting during the meeting being held in a virtual format due to the pandemic.

The President reported with great sadness on the death of three distinguished colleagues who not only made outstanding contributions to the field of mechanics, but also served IUTAM with much dedication:

Professor Jan D. Achenbach, a former member of the Congress Committee (1986-1994), a member of the Symposia Panel for Solid Mechanics (1988-2000) and its Chair (2000-2008), as well as a member (1996-1998) and finally Member-at-Large (2008-2020) of the General Assembly of IUTAM, passed away on 22 August 2020.

Professor Sol R. Bodner, a former member of the Executive Committee of the Congress Committee (1992-2000), member (1980-2003) and Member-at-Large (2004-2008) of the General Assembly of IUTAM, and one of the organizers of the 18th International Congress of Theoretical and Applied Mechanics in Haifa, Israel, in 1992, passed away on 29 October 2019.

Professor Bruno Eckhardt, a member of the Congress Committee (2010-2019), Executive Committee of the Congress Committee (2012-2019) and the General Assembly (2018-2019) of IUTAM, passed away on 7 August 2019.

The memory of Professors Jan D. Achenbach, Sol R. Bodner and Bruno Eckhardt was honored by the General Assembly with a moment of silence.

The Summary Record of the General Assembly held in Boston, USA, in 2018, was approved.

Item 2 – Brief report by the Secretary-General

The Secretary-General, Professor Henryk Petryk, submitted the following report to the General Assembly on the activities of IUTAM since the last General Assembly in Boston, USA, on 23 and 24 July 2018:

Mrs. President, distinguished Colleagues,

It is a great honor for me to deliver my report in front of the General Assembly. We meet for the first time online, and in this exceptional situation I was asked by

the Bureau to make my oral presentation brief. Minor additional details will be provided in the written version of my report.

Two years have passed since our last General Assembly in Boston, USA. As Mrs. President has reported, during that time we had the sad duty of recording the deaths of our three distinguished colleagues and friends. Summaries of their achievements have been or will soon be posted on the IUTAM website.

IUTAM Reports

IUTAM Reports 2018 and 2019 have been published both in paper form and on the IUTAM website, as usual in early June each subsequent year.

Adhering Organizations

There are now 47 adhering organizations. IUTAM is pursuing contacts with several countries, which has resulted so far in the application for admission of a new Adhering Organization representing Singapore. This will be further addressed under item 6 on the Agenda.

Associate Organizations

There is currently one Associate Organization from Armenia. They have applied for extension of their term by another four years, which will be further addressed under item 7 on the Agenda.

Affiliated Organizations

There are now 21 Affiliated Organizations. Their reports for the past two years are included in the IUTAM Reports 2018 and 2019. No new affiliation proposal was submitted for consideration to the Bureau during the last two years.

IUTAM Symposia

In 2018, fifteen IUTAM Symposia were successfully organized with an average attendance of 59, while in 2019 there were seven IUTAM Symposia successfully organized with an average attendance of 70. Reports of these may be found in the IUTAM Reports 2018 and 2019, respectively. Eight IUTAM Symposia and one IUTAM Special Event had been scheduled for 2020. However, the outbreak of COVID-19 and the uncertain worldwide situation have seriously influenced the IUTAM activities in 2020. Not only ICTAM 2020, as we all know, has been postponed by President Alberto Corigliano and his local organizing committee to 2021. Also seven IUTAM Symposia and the IUTAM Special Event, all scheduled for the first half of 2020, have been postponed by their Chairs and local organizers to 2021. One Symposium may still be held in Autumn this year. Overall, twelve IUTAM Symposia and one IUTAM Special Event are currently scheduled for 2021.

The call for Symposia proposals for 2022/23 and the evaluation procedure by the Symposia Panels ran smoothly according to schedule. The evaluation tables and reports have been distributed to the General Assembly members.

IUTAM Summer Schools

In 2018, there was no IUTAM Summer School, while in 2019 there were two, the IUTAM-BICTAM Summer School in Shanghai, China, with 40 participants, and the IUTAM-CISM Summer School in Udine, Italy, with 35 participants. The IUTAM-CISM Summer School scheduled for the first half of 2020 was postponed until 2021.

IUTAM endorsed events

Six endorsed events are scheduled for 2020 and 2021, which will be further addressed under item 15 on the Agenda.

IUTAM website

The IUTAM website is running smoothly and it is the basic source of public information about the history of IUTAM, its current activities and future events. The database is frequently updated, regarding institutions, persons, and events, to ensure that the information displayed is up-to-date. The IUTAM poster was updated in November 2019 and posted on the website. An “In Memoriam” section has been added to the front page, devoted to the memory of recently deceased distinguished colleagues.

IUTAM Newsletter

The IUTAM Newsletter is published twice a year, and contains information on the current and future IUTAM events.

Publications

As reported earlier, in November 2017 an agreement with Springer was signed by the Secretary-General for resuming publication of the IUTAM Bookseries, in which 32 volumes had been published in the past. In September 2019, the contract has been extended until the end of 2023.

The basic conditions are very convenient for IUTAM. Publication in the Series, recommended by IUTAM since 2018, is voluntary and free of charge, with temporary free access to online proceedings granted to all participants of a Symposium. Symposia organizers, if they wish, may also buy printed or electronic copies of their volumes or purchase open access. Five volumes have already appeared and one more has been contracted. Other acceptable formats for proceedings are special issues of high-quality journals or other forms previously approved by the Bureau of IUTAM.

Registration of IUTAM

A great deal of effort has recently been made to collect available information on the perspectives to give IUTAM legal identity in an internationally recognized sense. This will be dealt with further under item 14 on the Agenda.

Mrs. President, this concludes my report.

Henryk Petryk, Secretary-General

The report by the Secretary-General was unanimously adopted.

Item 3 – Brief report by the Treasurer on financial matters

The Treasurer, Professor Peter Eberhard, submitted the following report to the General Assembly:

The financial audit procedure for the year 2019 was performed without problems and the auditing company UNITreu GmbH in Eschborn / Germany verified all the numbers and transactions on IUTAM's accounts. As of Dec. 31, 2019 IUTAM had

664.796 USD on its accounts,

108.527 USD were collected in 2019,

61.544 USD were spent in 2019.

Compared to the balance of Dec. 31, 2018, which was 620.769 USD, this gives an increase of 44.026 USD for the year 2019 (including a loss of 2.956 USD from changes in the exchange rates).

The money is distributed to three accounts (in USD, EURO, DKK) at Spar Nord Bank in Aalborg/Denmark and two accounts (in DKK) at Nordea Bank Denmark. Unfortunately, the current interest rates are zero or even negative. In the year 2020 the expenses were very low due to the corona crises, but in 2021 this will change greatly. The not sufficient registration of IUTAM is one of the major risks we currently face.

The audit report with detailed numbers is available from the treasurer.

Many thanks go to our Assistant Treasurer Niels Olhoff for his ongoing help dealing with Danish authorities.

Peter Eberhard, Treasurer

The report by the Treasurer was adopted.

Item 4 – Preliminary discussion on annual dues

Following his report the Treasurer led a brief discussion on the annual dues. The Bureau proposed to keep for 2021 and 2022 the membership dues constant at 810 USD per year and unit. The Treasurer mentioned that in the future IUTAM would have to increase the dues again according to the rules decided by the GA in the past so that they follow again the UNESCO inflation numbers. The current dues have not been increased since 2013.

It was noted that the final decision regarding annual dues would be made in the second session of the General Assembly, see item 18 below.

Item 5 – Report by the Secretary of the Congress Committee

The Secretary of the Congress Committee, Professor Robert McMeeking, presented the following report:

President Aubry, Colleagues

I am pleased to give the following report to the General Assembly concerning the activities in the past 2 years of the Congress Committee and its Executive Committee.

Both committees met in Boston on the 23rd & 24th July 2018, and the Executive Committee met in Rio de Janeiro on the 22nd & 23rd July 2019. All meetings were taken up almost entirely by organizational matters regarding ICTAM2020. The only matter that was considered in Boston independent of ICTAM2020 was the nomination of individuals for election and re-election to the Congress Committee effective 1st November 2018. As that issue was deliberated and resolved by the General Assembly at its meeting on 24th July 2018, there is no need for me to report on it further.

At its meetings in Boston, the Congress Committee selected 16 Sectional Lecturers for ICTAM2020, namely Bala Balachandran, Alessandro Bottaro, Antonio DeSimone, Vikram Deshpande, Frederic Dias, Xi-Qiao Feng, Genta Kawahara, Ellen Kuhl, Eric Lauga, Jean-Baptiste Leblond, Christian Niordson, Clarence Rowley, Miles Rubin, Cameron Tropea, Roberto Verzicco and Emmanuel Villermaux. Subsequently, Vikram Deshpande was awarded the Hill Prize and so will give the Hill Prize Lecture at ICTAM2020. As no individual can give 2 invited talks at an ICTAM, by decision of the Executive Committee he was replaced by Stefanie Reese.

In addition, the Congress Committee identified possible Co-Chairs for Thematic Sessions at ICTAM2020. I am happy to report that 2 Co-Chairs have been invited for each Thematic Session and have accepted the role.

As you are aware, due to the COVID pandemic ICTAM2020 President Alberto Corigliano and his associates decided to postpone the 25th Congress to 2021, and it is now designated ICTAM2020+1. The dates will be 22nd to 27th August, 2021, and the venue, the Milan Congress Centre, is unchanged.

As part of the preparation for ICTAM2020+1, the International Papers Committee (IPC) met online on 26th to 30th March, 2020 to make decisions on the 3,098 papers that had been submitted. This number excludes the opening, closing, prize and sectional lectures, but includes 184 keynote invited lectures for Mini-symposia and Thematic Sessions. The submitted papers numbered 1,351 in fluids, 1,334 in solids plus 413 in fluids-solids. In a heroic effort, the members of the International Papers Committee had read all of the papers in their discipline of fluids or solids during February and March. Thus, they were ready to decide on which papers to accept by the time the online meeting was convened, an important consideration as a decision had to be made on each paper during the meeting within a relatively short time. The Committee's ability to make decisions quickly was aided by the advice provided on the quality of the papers by the Chairs of Mini-Symposia and Thematic Sessions and by the input from the screening committees of 8 larger nations, China, France, Germany, Italy, Poland, Russia, UK and USA. The International Papers Committee accepted 1,870 papers for 20-minute oral presentations and 1000 for short talks with posters. In addition to the 2,914 contributed papers, the Committee dealt with 4 plenary lectures, i.e. the opening, closing and prize lectures, the 16 Sectional Lectures, and the invited keynote lectures associated with the Mini-Symposia and the Thematic Sessions to ensure that the submitted abstracts were in good shape. On behalf of IUTAM I wish to thank the International Papers Committee for its extraordinary effort that contributes to the success of the Congress. In addition, IUTAM and its Congress Committee are extremely grateful to all those who participated in the paper selection process, such as session co-chairs and members of national screening committees. IUTAM and its Congress Committee are also very grateful to ICTAM2020 President Alberto Corigliano and ICTAM2020 Secretary-General Umberto Perego for their hard work that ensured that the meeting of the International Papers Committee was efficient and ran smoothly.

Authors with abstracts accepted by the International Papers Committee for ICTAM2020+1 will be allowed to update them before the 25th Congress is held. In addition, consideration will be given to allowing additional abstracts to be submitted for ICTAM2020+1 in the Short Talk with Poster category.

I have noted above that participation as a member of the IPC involves an enormous amount of work and a significant commitment of time. The current IPC advises that IUTAM must take steps to lessen the burden on the membership of the IPC, as dealing with upward of 3,000 abstracts is a burdensome undertaking. However, there is also the firm belief among members of the IPC, the Congress Committee and its Executive Committee that comprehensive oversight by the IPC of the entire paper selection procedure for IUTAM Congresses is significant to the quality of the Congresses, their timeliness and to ensuring that they cover all appropriate topics in Theoretical and Applied Mechanics, including those of importance that have recently emerged. The issue of the workload of the IPC will be a matter for the Congress Committee and its Executive Committee prior to the next meeting of the IPC scheduled for 2024.

As was the case for the 24th Congress, all 2-page papers that were accepted for the 25th Congress, and whose presenter pays the registration fee for ICTAM2020, will be included in a pdf representing the complete proceedings. This pdf will be archived and made available at no cost on the IUTAM web-site. It will be citable and have an ISBN. In addition, the Opening and Closing Lectures, the Sectional Lectures and the Invited Lectures from Mini-Symposia and Thematic Sessions will be included in the pdf as 4-page papers.

I turn now to the meetings of the Congress Committee and its Executive Committee held online last week on Friday 21st August, 2020 and Thursday 20th August, 2020 respectively. The Congress Committee heard presentations on 3 strong bids to host ICTAM2024, from Daegu (Korea), St. Petersburg (Russia) and Tokyo (Japan). Members of the Committee were able to ask questions of the bidders, and are currently pondering the proposals. The Committee will meet again on Thursday 27th August 2020 to discuss the bids and to make a decision.

The other substantive issue that was addressed by the Congress Committee and its Executive Committee at their online meetings last week is the nomination of individuals to be elected or re-elected to these committees. The Subcommittee formed for this purpose received 36 nominations of individuals to be elected to the Congress Committee, and 8 currently on the committee can be re-elected. In addition, a new Secretary of the Congress Committee will be elected as I retire this year both as Secretary and as a member of the Congress Committee. Furthermore, 3 new members of the Executive Committee will be elected, plus possibly 1 member who is eligible for re-election. Nominations for all of these elections have been made and considered by the Nominations Subcommittee. As Secretary of the Nominations Subcommittee, I will presently give a full report on its recommendations, so I will say no more on this issue and leave it to the General Assembly to decide what should be done once it has heard the report.

On behalf of IUTAM and the Congress Committee, I would like to thank those who are completing their terms of office on the Committee for their hard work and dedication. These individuals, completing their service on the Committee effective 31st October 2020, are Professors Horacio Espinosa, Huajian Gao, Patrick Huerre, Ann Karagozian, Djimedo Kondo, Tianjian Lu, Jacques Magnaudet, Valery Matveenko, Eric Shaqfeh, Gabor Stepan and Jens Walther.

I also wish to mark the sad passing of Bruno Eckhardt, who for many years, was a dedicated and highly effective member of both the Congress Committee and its Executive Committee. His unexpected death last year leaves those of us bereft who counted him as a friend. He is also a very significant loss to the Committees and to IUTAM, and he will be greatly missed.

President Aubry and Colleagues, this concludes my report.

Robert M. McMeeking, Secretary of the Congress Committee

The report by the Secretary of the Congress Committee was unanimously adopted.

The President thanked the Secretary for his report.

Item 6 – Matters concerning Adhering Organizations

Singapore

The Council on Theoretical and Applied Mechanics of the Materials Research Society of Singapore, represented by Professor Huajian Gao, requested admission as a Category II Adhering Organization of IUTAM representing Singapore, with two representatives on the IUTAM General Assembly.

The General Assembly admitted the Council on Theoretical and Applied Mechanics of the Materials Research Society of Singapore as Adhering Organization of IUTAM.

Egypt and Saudi Arabia

The cases of the Adhering Organizations representing Egypt and Saudi Arabia, who have not paid their dues to IUTAM since 2016 and 2014, respectively, were reported and discussed. The Bureau was in contact with persons from these two countries in 2020, without satisfactory conclusion so far but with perspectives regarding future cooperation. It was proposed to continue the talks and to return to the matter at the next General Assembly meeting.

The General Assembly agreed to give authority to the Bureau to follow up with these countries.

Item 7 – Matters concerning Associate Organizations

Armenia

The Secretary-General reported that the Armenian National Committee on Theoretical and Applied Mechanics became the Associate Adhering Organization of IUTAM representing Armenia in 2016 for a four-year term ending in 2020. The President of the Armenian National Committee on Theoretical and Applied Mechanics requested extension of their associate membership for another four years, and the Bureau supported this request.

The General Assembly approved the extension of the associate membership of the Armenian National Committee on Theoretical and Applied Mechanics for another four years until 2024.

Item 8 – Matters concerning Affiliated Organizations

The Secretary-General reported that one new representative of IUTAM in Affiliated Organizations and the IUTAM representative in the ISC Committee on Data (CODATA) had been appointed by the Bureau since the last General Assembly.

Item 9 – Report of the Electoral Committee (Bureau candidates)

The President reported that the Electoral Committee, consisting of Professor Nadine Aubry (USA, Chair *ex officio* as President), Professor Timothy Pedley (UK), Professor Werner Schiehlen (Germany) and Professor Wei Yang (China), proposed the candidates for Bureau elections for the next four-year term as follows:

Officer positions:

President: Professor Norman Fleck (Solids, UK)

Secretary-General: Professor Henryk Petryk (Solids, Poland)

Treasurer: Professor Dan Henningson (Fluids, Sweden).

The President thanked Professor Peter Eberhard for his outstanding job as Treasurer during two consecutive terms. Professor Nadine Aubry (Fluids, USA) continues *ex officio* as Vice-President in the next term which follows from the Statutes of IUTAM.

Non-Officer positions (one for each slot to be chosen by the General Assembly):

- W: Professor Samuel Forest (Solids, France) and Professor Irina Goryacheva (Solids, Russia)
- X: Professor Haiyan Hu (Solids, China) and Professor Kikuo Kishimoto (Solids, Japan)
- Y: Professor Atila Freire (Fluids, Brazil) and Professor Ivan Marusic (Fluids, Australia)
- Z: Professor Detlef Lohse (Fluids, Netherlands) and Professor Jens Sørensen (Fluids, Denmark).

Everyone on the above list was willing to accept nomination and provided a short bio distributed to the General Assembly members ahead of the meeting. Professors Norman Fleck, Henryk Petryk, Irina Goryacheva and Atila Freire had served one term on the Bureau.

The President invited the members of the Electoral Committee to add their comments. Professor Werner Schiehlen remarked that the proposal was very well balanced, between solids and fluids on the one hand, and between more experienced Bureau members and new ones on the other. Professor Timothy Pedley added that the Electoral Committee also attempted to arrange geographic balance.

In the discussion that followed several General Assembly members expressed their opinions on geographic diversity, representation of particular countries and representation of females within the Bureau. No other candidate was proposed in addition to the proposal by the Electoral Committee.

The nominations for each of the positions were put to the vote in the second session of the General Assembly under Item 19.

Item 10 – Proposals for election of members of the Congress Committee

The Nominations Subcommittee of the Congress Committee (NSCC), consisting of Professors Paul Linden (Chair), Robert McMeeking (*Ex Officio*, Secretary), Davide Bigoni, Anne De Wit, Michael Gilchrist, Ann Karagozian, Valery Matveenko, Sanjay Mittal, Shu Takagi and Jianxiang Wang, provided recommendations regarding the elections to the Congress Committee (CC) for the period 2020 through 2024 to be carried out by the General Assembly. On behalf of the NSCC Chair Paul Linden, NSCC Secretary Robert McMeeking gave a report on the recommendations of the NSCC.

The NSCC noted that, on 31st October 2020, Professor Nadine Aubry would retire as President of IUTAM and the CC, but would be replaced by the new President. Professor Bruno Eckhardt was a member of the Executive Committee of the Congress

Committee (XCCC) but sadly passed away in 2019. Professor Alberto Corigliano as President of ICTAM2020 would retire and be replaced by President of ICTAM2024, but could remain as an *ex officio* XCCC member until ICTAM2020+1 was held. The NSCC further noted that on 31st October 2020, having served two consecutive 4-year terms,

- Professor Robert McMeeking would retire as Secretary of the CC,
- Professors Jacques Magnaudet and Gabor Stepan would retire from the XCCC and CC,
- Professors Horacio Espinosa, Huajian Gao, Patrick Huerre, Ann Karagozian, Djimedo Kondo, Tianjian Lu, Valery Matveenko, Eric Shaqfeh and Jens Walther would retire from the CC.

Professor Robert McMeeking on behalf of IUTAM thanked these retiring members for their service to the Congress Committee, with appreciation for their effort, dedication and wisdom.

Professor Robert McMeeking reported that the Congress Committee, based on the recommendations of the NSCC, recommended for election

- Professor Leslie Banks-Sills, who served 1 term on the XCCC, to a 2nd term on the XCCC,
- Professors Pilar Ariza, Shiyi Chen, Maciej Floryan, Peter Hunter, Henryk Petryk, Maria Vittoria Salvetti and Hiroshi Yabuno, who served 1 term on the CC, to a 2nd term on the CC.

To fill the remaining vacant positions in order to maintain the current number 34 of members of the CC, the NSCC worked out a detailed proposal presented to the General Assembly by the Secretary of the NSCC.

The actual elections were held during the second session of the General Assembly under Item 21.

Item 11 – Proposals for election of Members-at-Large

There was a call for nominations for Members-at-Large (MaLs) addressed to the General Assembly members and open until 24 May 2020. The Secretary-General had received three proposals for re-election of MaLs and four proposals for election of new MaLs. Four MaLs had decided to retire: Professor Ben Freund, Professor Rodham Narasimha, Professor Tomomasa Tatsumi and Professor Leen van Wijngaarden.

Taking account of the above, the Bureau recommended to the General Assembly to re-elect Professor Yilong Bai, Professor Giulio Maier, Professor Keith Moffatt, Professor Niels Olhoff, Professor Timothy Pedley, Professor Jean Salençon and Professor Werner Schiehlen as MaLs for the period 2020-2024, and to elect Professor

Peter Eberhard, Professor Robert McMeeking, Professor Bernhard Schrefler and Professor Viggo Tvergaard as MaLs for the period 2020-2024.

It was noted that the final decision regarding this proposal would be made in the second session of the General Assembly, see Item 20 below.

Item 12 – Proposals for election of members of Symposia Panels

Fluid Mechanics Panel

The Secretary-General reported that Professor Detlef Lohse (Netherlands, Chair of the Panel), Professor Elisabeth Guazzelli (France) and Professor Hua Liu (China) had served their first four-year terms. The Bureau proposed to the General Assembly to reappoint for the second term 2020-2024 Professor Detlef Lohse (Netherlands) as Chair, and Professor Elisabeth Guazzelli (France) and Professor Hua Liu (China) as members of the Fluid Mechanics Panel.

Solid Mechanics Panel

The Secretary-General reported that Professor Huajian Gao (Singapore, Chair of the Panel) and Professor Alexander Belyaev (Russia) had served their first terms. Professor Jean-Baptiste Leblond (France) had served two consecutive terms and should be replaced. The Bureau proposed to the General Assembly to reappoint for the second term 2020-2024 Professor Huajian Gao (Singapore) as Chair and Professor Alexander Belyaev (Russia) as member, and to appoint Professor Davide Bigoni (Italy) as a new member of the Solid Mechanics Panel in 2020-2024.

It was noted that the final decision regarding these proposals would be made in the second session of the General Assembly, see Item 22 below.

Item 13 – Preliminary discussion on future IUTAM Symposia and Summer Schools. Brief reports from Solids and Fluids Panels

The call for proposals for IUTAM Symposia in 2022/2023 had resulted in 19 proposals, listed below (FL stands for Fluids, FS for Fluids/Solids and SO for Solids).

- FL.01 *From Stokesian suspension dynamics to particulate flows in turbulence* (Toulouse, France)
- FL.02 *Data-driven modeling and optimization in fluid mechanics* (Aarhus C, Denmark)
- FL.03 *Turbulent/non-turbulent interface in turbulent shear flow* (Beijing, China)

- FL.04 *Interfaces and mixing, and non-equilibrium dynamics* (Perth, Australia)
- FL.05 *Flow and transport in complex biological structures* (Manchester, UK)
- FS.01 Withdrawn
- FS.02 *Advanced workshop on petroleum engineering mechanics* (Qingdao, China)
- FS.03 *Data-driven nonlinear and stochastic dynamics with the control* (Xi'an, China)
- FS.04 *Dynamics of capsules, vesicles and cells in flow* (Compiègne, France)
- FS.05 *Meeting the challenges in soft matter with large-scale particle simulations* (Yokohama, Japan)
- FS.06 *Interfacial effects, gels and cells* (Limerick, Ireland)
- SO.01 *Multiscale architecting of microstructures of solids: mechanics and manufacture* (Beijing, China)
- SO.02 *Soft matter mechanics* (Hangzhou, China)
- SO.03 *Mechanics of advanced materials and structures with multifield couplings* (Nanjing, China)
- SO.04 *Enhancing material performance by exploiting instabilities and damage evolution* (Warsaw, Poland)
- SO.05 *Nonlinear dynamics for design of mechanical systems across different length/time scales* (Tsukuba, Japan)
- SO.06 *Creep in structures* (Magdeburg, Germany)
- SO.07 *The mechanics of additive manufacturing* (Freiberg, Germany)
- SO.08 *Optimal design and control of multibody systems – adjoint methods, alternatives, and beyond* (Hamburg, Germany)

The call for proposals had resulted in 2 proposals for IUTAM Summer Schools:

- SSFS.01 *Sports physics and technology* (Udine, Italy)
- SSFS.02 *Convection and deformation in porous media: geophysical and biological flows* (Udine, Italy)

The proposals for IUTAM Symposia and Summer Schools had been reviewed by the two Symposia Panels. All proposals, the evaluation tables and the full reports of the Panels were distributed to the members of the General Assembly in advance of the meeting. The recommendations of the two Panels were reported by Professor Detlef Lohse, the Chairman of the Fluids Symposia Panel, and Professor Huajian Gao, the Chairman of the Solids Symposia Panel.

The President thanked the Symposia Panels' Chairs and members for the comprehensive reports and all their work.

After a preliminary discussion the proposals for IUTAM Symposia were divided into three groups. The first group consisted of the ten proposals of rating Y and coded

FL.01, FL.02, FL.03, FS.03, FS.04, FS.06, SO.01, SO.03, SO.04, SO.06. The second group consisted of three proposals coded SO.02, SO.05, SO.08. The third group consisted of the remaining five proposals of rating N coded FL.04, FL.05, FS.02, FS.05, SO.07.

It was agreed that the IUTAM Symposia of the first group of rating Y would be accepted in the second session of the General Assembly under Item 16, whereas those of the third group of rating N would not be considered in the second session.

Item 14 – Discussion on registration of IUTAM

The Secretary-General presented the Bureau's proposal to consider registration of IUTAM in the Netherlands as a new association under Dutch Civil Law. The aim was to give IUTAM legal identity in an internationally recognized sense, and consequently, to facilitate IUTAM contracts of any kind in the present times of ever stricter financial rules. Several reasons for choosing the Netherlands as the registration country were presented. The Secretary-General asked the General Assembly for support for the Bureau's proposal, after which appropriate resolutions could be prepared and subjected to electronic voting by the General Assembly in due course.

The President opened the discussion in which a number of issues related to the registration were addressed.

The General Assembly agreed to authorize the Bureau to continue working in the direction indicated in the Bureau's proposal.

The meeting then adjourned.

The meeting reconvened on 26 August 2020 at 9:00 Boston time.

Item 15 – Future IUTAM endorsed events

The Secretary-General presented the list of six endorsed events scheduled for 2020 and 2021, and of several future conferences to be organized by Affiliated Organizations which could be endorsed by IUTAM.

Item 16 – Continued discussion and final decision regarding future IUTAM Symposia

The General Assembly decided to accept the ten IUTAM Symposia of rating Y coded FL.01, FL.02, FL.03, FS.03, FS.04, FS.06, SO.01, SO.03, SO.04, SO.06, and reject the five IUTAM Symposia of rating N coded FL.04, FL.05, FS.02, FS.05, SO.07.

After further discussion on the remaining three proposals, a vote was taken separately on each of them.

All three IUTAM Symposia coded SO.02, SO.05, SO.08 were finally accepted.

It was decided that an IUTAM grant would be provided to all accepted Symposia except one (SO.03) for which funding from IUTAM was not requested.

Item 17 – Continued discussion and final decision regarding future IUTAM Summer Schools on Mechanics

The General Assembly decided to accept both Summer Schools coded SSFS.01 and SSFS.02 with an IUTAM grant.

Item 18 – Continued discussion and final decision regarding annual dues

The General Assembly voted in favor of the following amounts for the units of dues (no increase):

US \$ 810 in 2021

US \$ 810 in 2022.

Item 19 – Election of Officers and members of the Bureau

The General Assembly elected by secret ballot the following persons to the three vacant Officer positions P, S and T for the four-year term 2020-2024 effective from 1st November 2020:

President: Professor Norman Fleck (UK)

Secretary-General: Professor Henryk Petryk (Poland)

Treasurer: Professor Dan Henningson (Sweden)

(according to Article XI of the Statutes, the retiring President, Professor Nadine Aubry (USA), will serve as Vice-President)

The General Assembly elected by secret ballot the following persons to the four vacant non-Officer positions W, X, Y, and Z for the period 2020-2024 effective from 1st November 2020:

Position W: Professor Irina Goryacheva (Russia)

Position X: Professor Kikuo Kishimoto (Japan)

Position Y: Professor Atila Freire (Brazil)

Position Z: Professor Detlef Lohse (Netherlands)

The election was preceded by a discussion on geographic balance and representation of females within the Bureau. It was finally suggested that the new Bureau would consider appointing a special subcommittee to address the diversity issues. After the discussion, the General Assembly decided to carry out votes on the slate of candidates as proposed by the Electoral Committee, with the outcome given above.

Item 20 – Election of Members-at-Large

The General Assembly re-elected Professor Yilong Bai, Professor Giulio Maier, Professor Keith Moffatt, Professor Niels Olhoff, Professor Timothy Pedley, Professor Jean Salençon and Professor Werner Schiehlen as Members-at-Large for the period 2020-2024.

The General Assembly elected Professor Peter Eberhard, Professor Robert McMeeking, Professor Bernhard Schrefler and Professor Viggo Tvergaard as Members-at-Large for the period 2020-2024.

Item 21 – Election of members of the Congress Committee

These elections were held as prescribed by the recommendations of the NSCC. The Secretary of the Congress Committee, Professor Robert McMeeking, presented the candidates for the series of elections. All appointments were for the period 1st November 2020 to 31st October 2024.

The General Assembly re-elected to a 2nd term as members of the Congress Committee:

Prof. Pilar Ariza (Spain)

Prof. Shiyi Chen (China)

Prof. Maciej Floryan (Canada)

Prof. Peter Hunter (New Zealand)

Prof. Henryk Petryk (Poland)

Prof. Maria Vittoria Salvetti (Italy)

Prof. Hiroshi Yabuno (Japan)

The General Assembly re-elected to a 2nd term as member of the Executive Committee of the Congress Committee:

Prof. Leslie Banks-Sills (Israel)

The General Assembly elected as Secretary of the Congress Committee:

Prof. Sanjay Mittal (India)

The General Assembly elected as members of the Executive Committee of the Congress Committee:

Prof. Shiyi Chen (China)
Prof. Alberto Corigliano (Italy)
Prof. Paul Linden (UK)

The General Assembly elected as members of the Congress Committee:

Prof. Ellen Arruda (USA)
Prof. Catherine Brinson (USA)
Prof. Samuel Forest (France)
Prof. Peter Frick (Russia)
Prof. Elisabeth Guazzelli (France)
Prof. Stefan Hartmann (Germany)
Prof. Gareth McKinley (USA)
Prof. Stéphane Popinet (France)
Prof. Gherhardt Ribatski (Brazil)
Prof. Alfredo Soldati (Austria)
Prof. Kathleen Stebe (USA)
Prof. Xiaojing Zheng (China)

Additionally, Prof. Norman Fleck (UK), as the elected President of IUTAM from 1st November 2020 to 31st October 2024, also becomes *ex officio* the President of the Congress Committee and Chair of the Executive Committee of the Congress Committee in that period. Prof. Heuy Dong Kim (Korea), as President of ICTAM2024, is appointed *ex officio* as member of the Congress Committee and the Executive Committee of the Congress Committee.

The new membership of the Congress Committee is recorded in the following list:

Prof. P. (Pilar) Ariza, Spain, 2024
Prof. E.M. (Ellen) Arruda, USA, 2024
Prof. L. (Leslie) Banks-Sills, Israel, 2024, member of XCCC
Prof. D. (Davide) Bigoni, Italy, 2022
Prof. L.C. (Catherine) Brinson, USA, 2024
Prof. S. (Shiyi) Chen, China, 2024, member of XCCC
Prof. A. (Alan) Cocks, UK, 2022
Prof. A. (Alberto) Corigliano, Italy, 2024, member of XCCC
Prof. A. (Anne) De Wit, Belgium, 2022
Prof. N.A. (Norman) Fleck, UK, 2024, Chair of CC and XCCC (ex officio)
Prof. J.M. (Maciej) Floryan, Canada, 2024
Prof. S. (Samuel) Forest, France, 2024
Prof. P. (Peter) Frick, Russia, 2024

Prof. M.D. (Michael) Gilchrist, Ireland, 2022
Prof. E. (Elisabeth) Guazzelli, France, 2024
Prof. S. (Stefan) Hartmann, Germany, 2024
Prof. P. (Peter) Hunter, New Zealand, 2024
Prof. A. (Anne) Juel, UK, 2022
Prof. H.D. (Heuy Dong) Kim, Korea, 2024, member of XCCC (ex officio)
Prof. P.F. (Paul) Linden, UK, 2024, member of XCCC
Prof. D. (Detlef) Lohse, Netherlands, 2022
Prof. G.H. (Gareth) McKinley, USA, 2024
Prof. S. (Sanjay) Mittal, India, 2024, Secretary of CC and XCCC
Prof. H. (Henryk) Petryk, Poland, 2024
Prof. S. (Stéphane) Popinet, France, 2024
Prof. G. (Gherhardt) Ribatski, Brazil, 2024
Prof. M.V. (Maria Vittoria) Salvetti, Italy, 2024
Prof. A. (Alfredo) Soldati, Austria, 2024
Prof. K.J. (Kathleen) Stebe, USA, 2024
Prof. S. (Shu) Takagi, Japan, 2022
Prof. J.-X. (Jianxiang) Wang, China, 2022
Prof. W.-C. (Wei-Chung) Wang, China-Taipei, 2022
Prof. H. (Hiroshi) Yabuno, Japan, 2024
Prof. X.J. (Xiaojing) Zheng, China, 2024

Item 22 – Election of members of Symposia Panels

With reference to the discussion under item 12, *the General Assembly elected to the Symposia Panels for the period 2020 to 2024:*

- Professor Detlef Lohse (Netherlands) – reappointed as Chair of the Fluid Mechanics Panel
- Professor Huajian Gao (Singapore) – reappointed as Chair of the Solid Mechanics Panel
- Professor Elisabeth Guazzelli (France) – reappointed to the Fluid Mechanics Panel
- Professor Hua Liu (China) – reappointed to the Fluid Mechanics Panel
- Professor Alexander Belyaev (Russia) – reappointed to the Solid Mechanics Panel
- Professor Davide Bigoni (Italy) – appointed to the Solid Mechanics Panel.

Item 23 – Date and venue of the next General Assembly meeting

The General Assembly agreed to hold its next meeting in Cambridge, UK, in 2022.

Item 24 – Any other business

It was suggested to consider the possibility of a General Assembly meeting at ICTAM 2020+1 in Milan to discuss the diversity issues.

The incoming President Norman Fleck thanked the President Nadine Aubry, the Secretary of the Congress Committee Robert McMeeking and the Treasurer Peter Eberhard for their dedicated work for IUTAM.

Then, the President closed the meeting.

Henryk Petryk, Secretary-General

2020 Treasurer's Report

Statement of Change in Fund Balance	U.S. Dollars
Balance, 31 December 2019	664.796,06
Net revenues minus expenses for 2020	95.133,80
Balance, 31 December 2020	759.929,86
Statement of Cash Revenues Collected over Expenses Paid	
Revenues collected during 2020:	
Subscription dues	118.570,14
Interest income	573,53
Total	119.143,67
Expenses paid during 2020:	
IUTAM Symposia	0,00
Travel, Bureau	0,00
Travel, Executive Committee of Congress Committee	0,00
Travel, others	0,00
Contribution to ISC	4.425,77
Auditor's fee	2.634,37
Administration Website	3.304,39
Bank fees	616,87
Insurance	1.423,39
Office costs Secretary General	24.919,80
Total	37.324,59
Revenues minus expenses for 2020	81.819,08
Gain from exchange of currency	13.314,72
Net revenues minus expenses for 2020	95.133,80

IUTAM Bank Accounts 2020**Running Accounts**

Bank	Balance 31 Dec. 19	Withdrawals 2020	Deposits 2020	Balance 31 Dec. 20	Currency
Spar Nord Bank Aalborg 9236 457 73 07097*	537.661,59	-38.071,48	118.707,27	618.297,38	USD
Spar Nord Bank Aalborg 9236 457 73 07089	3.327,19	-50,20	0,00	3.276,99	EUR
Spar Nord Bank Aalborg 9236 457 22 92520	454,84	-1.003,62	6.625,65	6.076,87	DKK
Nordea Bank Horsholm 6887 390 760 (Account is not used but required by the bank)	0,00	0,00	0,00	0,00	DKK
Nordea Bank Horsholm 0745 417 701	7.485,41	-1.450,25	821.676,84	827.712,00	DKK

Savings Account

Bank	Balance 31 Dec. 19	Withdrawals 2020	Deposits 2020	Balance 31 Dec. 20	Currency
Nordea Bank Horsholm	817.500,00	-817.589,34	89,34	0,00	DKK

Treasurer:

Professor Dan Henningson, Department of Engineering Mechanics, KTH Royal Institute of Technology, Osquars Backe 18, 10044 Stockholm, Sweden

Assistant Treasurer:

Professor Jens Nørkær Sørensen, Department of Wind Energy, Technical University of Denmark, Nils Koppels Allé 403, 2800 Kgs. Lyngby, Denmark

Payment of Dues Record 2020

<i>Adhering Organization</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>
Armenia*		1			
Australia	3	3	3	3	3
Austria	1	1	1	1	1
Belgium	5	5	5	-	5
Brazil	3	3	3	3	3
Bulgaria	1	1	1	-	1
Canada	8	8	8	8	8
Chile	1	1	1	1	1
China/Beijing	8	12	12	12	12
China/Hong Kong	1	1	1	-	-
China/Taipei	3	3	3	3	3
Croatia	1	1	1	1	1
Czech Republic	1	1	1	1	1
Denmark	3	3	3	3	3
Egypt	-	-	-	-	-
Estonia	1	1	1	1	1
Finland	3	3	3	3	3
France	8	8	8	8	8
Georgia	1	1	1	-	-
Germany	8	8	8	8	8
Greece	1	1	1	1	-
Hungary	1	1	1	1	1
India	5	5	5	5	5
Ireland	1	1	1	1	1
Israel	3	3	3	3	3

Italy	8	8	8	8	8
Japan	8	8	8	8	8
Korea	1	1	1	1	1
Mexico	1	1	1	-	-
Netherlands	3	3	3	3	3
New Zealand	1	1	1	1	1
Norway	1	1	1	1	-
Poland	3	3	3	3	3
Portugal	1	1	1	-	-
Romania	1	1	1	1	1
Russia	8	8	8	8	8
Saudi Arabia	-	-	-	-	-
Serbia	1	1	1	1	1
Singapore					3
Slovenia	1	1	1	1	1
South Africa	1	1	1	1	1
Spain	1	1	1	1	1
Sweden	5	5	5	5	5
Switzerland	3	3	3	3	3
Turkey	1	-	-	-	-
Ukraine	1	1	1	1	1
United Kingdom	8	8	8	8	8
United States	12	12	12	12	12
Vietnam	1	1	1	-	-

Note: For any particular year, a dash (–) indicates that dues had not been paid as of December 31, 2020. Dues are expressed in membership units of 1, 3, 5, 8 or 12, corresponding to category of membership from I through V, respectively.

* Armenia entered IUTAM as an Associate Adhering Organization in 2017.

Dan Henningson, Treasurer

Reports on Affiliated Organizations

AFMC (Asian Fluid Mechanics Committee)

<https://acfm.iisc.ac.in>

During the successful 16th Asian Congress of Fluid Mechanics held in Bangalore, India in December 2019, the Asian Fluid Mechanics Committee (AFMC) continued its efforts to promote fluid mechanics activities in Asia. Despite of the influence of COVID Virus, AFMC made the following efforts in 2020:

- Updating the membership of AFMC as discussed in ACFM16 that we need to revitalize our committee with younger generations. The guideline is to involve more young people from Asian fluid mechanics community with their academic authority, passion and devotion. This process is continuing till the next ACFM17 to be held in China.
- Forming the local committee of ACFM17 which is to be held in Beijing-Zhangjiakou, the venue of 2022 Winter Olympic. Professor Qingquan Liu of Beijing Institute of Technology, also an AFMC member, had kindly accepted as the local host of ACFM 17.
- Asian fluid mechanics community was deeply saddened that our past Chairman, Professor Roddam Narasimha, passed away on 15 December 2020. Professor Roddam Narasimha was one of the founding members of AFMC and made significant contribution to fluid mechanics in Asia. All members of AFMC sent their deepest condolences to Professor G S Bhat, our previous AFMC Chairman and a student of Professor Narasimha.

I would like to say at this point that ACFM17 is still under preparation. It is supposed to be held in the summer of 2022. We'll probably announce the first Call For Paper in the summer of 2021. Hopefully, we'll have a clearer picture by then if we can have the congress as normal.

Report composed by Song Fu

BICTAM (Beijing International Center for Theoretical and Applied Mechanics)

www.bictam.org.cn

BICTAM promotes the development and application of mechanics and related interdisciplinary branches in the Asia-Pacific region and around the world via conferences and publications. In 2020, the COVID-19 global pandemic poses a major challenge to the Center. Several conferences were postponed to 2021 or held virtually.

Seminar on Intelligent Simulation and Control of Mechanics of Complex Systems

The Seminar was held in Beijing, China on 28-29 October 2020. It consisted of 20 keynote lectures focused on artificial intelligent simulation methods and their applications in modeling and control of complex system mechanics, as well as important engineering fields. The event provided an important platform for the intensive exchange among researchers in the field of mechanics of complex systems. More than 100 participants attended the Seminar in-person. It also attracted over 300 viewers on its online platform.

The 1st BICTAM-CISM Symposium on Dispersed Multiphase Flows: From Measuring to Modeling

The Symposium, initially scheduled for 4-6 March 2020, was successfully held online on 2-5 March 2021. More than 70 experts and scholars from 12 countries attended the Symposium on ZOOM platform. The live streaming platform attracted over 1,100 views from 23 countries around the globe. The event consisted of 8 keynote lectures and 53 regular lectures of the topics related to a wide selection of topics in the broad area of dispersed multiphase flows. The Symposium provides an opportunity to promote the exchange and sharing of achievements and ideas of dispersed multiphase flows between experts from Asia and Europe. The 2nd BICTAM-CISM Symposium will be held in Udine, Italy in 2023.

Official Publication of BICTAM: Theoretical & Applied Mechanics Letters (TAML)

TAML provides fast publication of letter-sized articles and invited reviews within 50 days, which greatly shortens the time for publication and guarantees that articles will be read when they are still fresh and valuable. TAML has published a total of 59 articles in 2020, including special issues of Computational Granular Mechanics and Mechanistic Machine Learning.

Report composed by Yewen Zhang**CISM (International Centre for Mechanical Sciences)**

www.cism.it

1. Courses and Seminars

The emergency situation caused by the pandemic had a great impact on the regular programme of courses and seminars planned for the Centre for 2020 by the Scientific Council. In fact all the Advanced Courses had to be rescheduled for 2021.

Nevertheless, the following webinars have been held thanks to the efforts the organizers:

- ***Advanced Numerical Approaches for Simulation of Turbulent Multiphase Flow***
(hybrid format, September 7-11, 2020)
Cristian Marchioli (University of Udine, Italy), Francesco Zonta (Vienna Technical University, Austria)
- ***Innovative Structures for Lightweight Vehicles***
(webinar, November 23-25, 2020)
Erasmus Carrera (Turin Polytechnic, Italy), Paolo Gardonio (University of Udine, Italy), Alfonso Pagani (Turin Polytechnic, Italy)
- ***Computational Biomechanics - Advanced Models and Methods***
(webinar, December 2-4, 2020)
Wolfgang A. Wall (Munich Technical University, Germany), Bernhard Schrefler (CISM – University of Padua, Italy)
- ***Advanced Topics in Computational Mechanics***
(webinar, December 7-10, 2020)
Wolfgang A. Wall (Munich Technical University, Germany)
- ***Reliable Software Design and Production***
(webinar, December 15-17, 2020)
Riccardo Bernardini (University of Udine, Italy)

2. Editorial Activities

The following books were published in 2020 by Springer Verlag Vienna-New York:

- M. Kronbichler, P.O. Persson: “Efficient High-Order Discretizations for Computational Fluid Dynamics”

- G. Venture, J. Solis, Y. Takeda, A. Konno: “ROMANSY 23 - Robot Design, Dynamics and Control Proceedings of the 23rd CISM IFToMM Symposium”

- A. Bertram, S. Forest: “Mechanics of Strain Gradient Materials”

3. Scholarships

A number of scholarships was offered to participants who were not supported by their home institutions, priority being given to young researchers coming from countries that contribute to CISM’s operating resources.

4. International Participation

In 2020, 38 lecturers participated in CISM’s activities, coming from Austria, Brasil, France, Germany, Italy, Poland, Russia, and USA. There were 337 participants from 26 countries: Argentina, Austria, Belgium, Brasil, Chile, Croatia, Czech Republic,

Denmark, Eire, France, Germany, Iran, India, Italy, Morocco, The Netherlands, Pakistan, Poland, Portugal, Russia, Spain, South Africa, Tunisia, Turkey, UK, USA.

Report composed by Bernhard Schrefler

EUROMECH (European Mechanics Society)

www.euomech.org

EUROMECH - European Mechanics Society is an international non-governmental non-profit scientific organization. The objective of the Society is to engage in all activities intended to promote in Europe the development of mechanics as a branch of science and engineering. The society is governed by the Council whose members are being elected according to rules set in the Statutes.

EUROMECH meetings

The EUROMECH Council has overall responsibility for EUROMECH Colloquia and EUROMECH Conferences.

EUROMECH Colloquia are informal meetings on specialized research topics. Participation is restricted to a small number of research workers (30-50) actively engaged in the field of each Colloquium. The organization of each Colloquium, including the selection of participants for invitation, is entrusted to a Chairperson. Proceedings are not normally published. Those who are interested in taking part in a Colloquium should contact the appropriate Chairperson.

EUROMECH Conferences are broad in scientific scope. They include:

- European Fluid Mechanics Conference (EFMC), held every two years;
- European Mechanics of Materials Conference (EMMC), held every two years.
- European Nonlinear Oscillations Conference (ENOC), held every three years;
- European Solid Mechanics Conference (ESMC), held every three years;
- European Turbulence Conference (ETC), held every two years.

They are open to all those interested and generally have a number of participants between 250 and 1000, although in some cases the latter number has been exceeded substantially. The general purpose is to provide opportunities for scientists and engineers to meet and discuss current research. The responsibility for each series of Conferences is delegated to a Standing Conference Committee. The organizational work is carried out by Local Organizing Committees (LOC). Those who are interested

in taking part in one of the Conferences should register through the conference website or contact the Chairman or Secretary of the appropriate LOC.

Prizes and Fellowships

The EUROMECH Fluid Mechanics Prize and the EUROMECH Solid Mechanics Prize are awarded on the occasions of the Fluid and Solid Mechanics conferences for outstanding and fundamental accomplishments in mechanics. At those conferences, Fellowships are awarded to members who have contributed significantly to the advancement of mechanics and related fields. Also, Young Scientist Prizes are awarded at these conferences to the best oral presentations.

EUROMECH Colloquia initially planned in 2020

[608] *Dynamics of gravity currents*, 29 June-1 July, Grenoble, France.

[609] *Granular pattern in oscillatory flows*, 22-25 September, Genova, Italy.

[612] *Separation control in high-speed flows – mechanisms, methods and applications*, 15-18 September, Aachen, Germany.

[614] *Machine learning methods for prediction and control of separated turbulent flows*, 5-8 October, Paris, France.

[618] *Uncertainty quantification in computational mechanics*, 15-18 July, Luxembourg.

[619] *Oberbeck-Boussinesq hypothesis and beyond in stratified turbulence*, 7-10 July, Wien, Austria.

Due to the COVID 19 pandemic, none of the above colloquia could take place. EUROMECH established close contacts with the organizers to determine the best way to postpone the events, select new dates in 2021 or 2022, avoid possible future clashes of dates, etc. EUROMECH also decided to propose a professional virtual platform to organizers willing to hold colloquia in virtual or hybrid form. To this end, a formal contract is currently under discussion with a company specialized in the field of organization and production of conference services. Instead of providing seeding money to a colloquium organizer, EUROMECH will support most of the cost asked by the company to operate this platform during the corresponding colloquium. About ten organizers have already expressed their interest to work with this solution in 2021 and 2022.

EUROMECH Conferences initially planned in 2020

EMMC17 – 17th *European Mechanics of Materials Conference*,
27-29 May, Madrid, Spain.

ENOC10 – 10th *European Nonlinear Oscillations Conference*,
5-10 July, Lyon, France.

EFMC13 – 13th *European Fluid Mechanics Conference*,
6-10 September, Zurich, Switzerland.

Due to the COVID 19 pandemic, none of the above three conferences could take place. In March 2020, the local organizing committee and the EMMC Committee decided to merely cancel EMMC17 which is a biennial event. Almost simultaneously, ENOC10 was postponed to July 2021. This event has been recently postponed again to 2022 (ENOC is a triennial conference). In April 2020, EFMC13 was postponed to June 2021, and merged with ETC18 which was originally scheduled on August 23-26, 2021, i.e. on the same week as the re-scheduled Milan ICTAM. Unfortunately, this merged conference could not take place either and was eventually cancelled.

For more details see www.euromech.org

Report composed by Jacques Magnaudet

HYDROMAG (International Association for Hydromagnetic Phenomena and Applications)

<https://hydromag.wordpress.com>

HYDROMAG is an international association of scientists and engineers active in these fields of research which involve the flow of fluids in the presence of magnetic fields, namely magnetohydrodynamics (MHD), electromagnetic processing of materials (EPM) and dynamics of magnetic fluids (MF). HYDROMAG promotes growth and visibility of the field of hydromagnetics and stimulates exchanges between its members throughout the world via conferences, workshops, summer schools and publications. Detailed information on HYDROMAG can be accessed under

<https://hydromag.wordpress.com/>

This WWW-site contains information on membership, forthcoming conferences and the electronic HYDROMAG newsletter.

Hydromag has been awarded the joint organisation of a thematic session on EHD and MHD at the forthcoming ICTAM conference in Milan (2020). The session will be jointly chaired by Hydromag Committee members Prof. Alban Poth rat (Coventry University) and Prof. Laurent Davoust (Grenoble-Alpes University). Due to the COVID19 pandemic, ICTAM has been postponed to 2021. A new call for additional abstracts has been completed and the session will now take place online during the summer 2021 with about 50 participants expected.

Additionally, the organisation of the next PAMIR conference in 2022 has been awarded to Coventry University (Chair A. Poth rat), and HYDROMAG will be associated to it, with a Poster Prize. The conference is expected to run on a traditional model with physical presence.

During the pandemic, the Hydromag newsletter continued to operate and provided a link to the community that has been all the more crucial as face to face contacts were practically impossible. This stresses the importance of this form of regular communication.

Report composed by Alban Poth rat

IABEM (International Association for Boundary Element Methods)

www.iabem.org

The International Association for Boundary Element Methods (IABEM) is an open community, where everybody working on boundary element methods or boundary integral equations is welcome independent of her/his scientific field. Consequently, there is no official membership or any fees. Details on IABEM can be found in <http://www.iabem.org>.

The main scientific activities of IABEM are found in the biannual IABEM symposia in addition to minisymposia in related conferences or workshops in the field of BEM.

The next symposium, originally planned to be in Hong Kong, China in 8-10 April, 2020, has been postponed due to the COVID19 pandemic until one can have a meeting in person safely.

Report composed by Naoshi Nishimura

IACM (International Association for Computational Mechanics)

<https://iacm.info>

The following IACM Special Interest Conferences took place in 2020:**3rd International Conference on Computational Engineering and Science for Safety and Environmental Problems - COMPSAFE 2020**

8-11 December 2020 / Kobe, Japan

2nd African Conference on Computational Mechanics - AFRICOMP 2020

30 November – 2 December / Cape Town, South Africa

WCCM XIV-ECCOMAS 2020 was postponed to 2021 due to Covid-19:

The **14th World Congress on Computational Mechanics** jointly organized with the **ECCOMAS 2020** in Paris, France.

The conference was held in a virtual format and gathered 2,500 delegates.

The following IACM Special Interest Conferences will take place in 2021, in a virtual or hybrid format:**9th International Conference on Computational Methods in Marine Engineering - Marine 2021**

2-4 June 2021 / Edinburgh, Scotland, UK

9th International Conference on Coupled Problems in Science and Engineering - COUPLED PROBLEMS 2021

13-16 June 2021 / Chia Laguna, Sardinia, Italy

International Conference on Adaptive Modeling and Simulation - ADMOS 2021

21-23 June 2021 / Gothenburg, Sweden

16th International Conference on Computational Plasticity. Fundamentals and Applications - COMPLAS 2021

7-10 September 2021 / Barcelona, Spain

10th International Conference on Textile Composites and Inflatable Structures - Structural Membranes 2021

13-15 September 2021 / Munich, Germany

7th International Conference on Particle-Based Methods. Fundamentals and Applications - PARTICLES 2021

4-6 October 2021 / Hamburg, Germany

IACM Computational Fluids Conference - CFC will take place in 2021:

21st International Computational Fluids Conference CFC 2021

17-21 October 2021 / Hangzhou, China

Report composed by Cristina Vizcaya

IASCM (International Association for Structural Control and Monitoring)

The *International Association of Structural Control and Monitoring* (IASCM) represents the diverse and interdisciplinary community of international researchers engaged in advancing the state-of-art in structural control and monitoring technologies.

Due to COVID-19, the *Eighth International Workshop on Structural Control and Monitoring* (8IWSCM) which was the main activity scheduled by IASCM in 2020, was not held, and instead was postponed till May 2021.

Report composed by Sami F. Masri

IAVSD (International Association for Vehicle Systems Dynamics)

www.iavsd.org

IAVSD supported and participated in

- Switches & Crossings Benchmark Workshop, 28-29 April 2020, Huddersfield, UK.

Dr Yann Bezin from The University of Huddersfield (UK) and Dr Björn Pålsson from Chalmers University of Technology (Sweden) organised a two day workshop to review and discuss the results from the benchmark they initiated at the 2019 IAVSD International Symposium on Dynamics of Vehicles on Roads and Tracks, in Gothenburg, Sweden. The benchmark focuses on comparison of dynamic vehicle-track interaction results in switches and crossings using a multibody system dynamics approach. The workshop, originally planned over two days, was replaced by two 3-hours online sessions over the two days, this being due to the COVID-19 situation;

it was well attended with over 35 participants each day. Nineteen sets of results have been received so far from eighteen independent participants, including nine independent multibody dynamics codes. The exercise has been widely followed, with expressions of interest from 38 contacted organisations: these are from academia (23) industry (8) and software developers (7), making this benchmark well known to the global community of developers and users. Resulting from the workshop, a Special Issue of Vehicle System Dynamics Journal is planned, leading to an archival collection of papers on the topic of rail-wheel interactions at switches and crossings.

- 11th International Munich Chassis Symposium, 23-24 June 2020, in Munich, Germany.

IAVSD started preparation on the

- 27th IAVSD Symposium on Dynamics of Vehicles on Roads and Tracks.

The organizers of this Symposium are the Department of Railway Cars and Railcars maintenance at the Emperor Alexander, St. Petersburg State Transport University, Scientific Center “Vagony”, All-Union Research and Development Center for Transportation Technology (Saint-Petersburg, Russia). Considering the current situation of the COVID-19 pandemic, including all the uncertainties involved with respect to travel restrictions, health issues and uncertainty over the number of participants in August 2021, the board of IAVSD has taken a decision to hold the symposium online. The online symposium is planned for the period 17-19 August 2021, including 5 State-of-the-Art presentations, 120 presentations equally spread between road and rail sessions, plus workshops to consider 35 short-communication presentations as well as a regular workshop and the opening/closing sessions.

IAVSD relaunched its homepage www.iavsd.org in July 2020. Next to the renewal of its design, notes on the history of IAVSD and VSD have been introduced by Manfred Plöchl and Johannes Edelmann.

Peter Lugner (TU Wien, Austria) and Werner Schiehlen (Univ. Stuttgart, Germany) have been appointed Honorary Members of IAVSD in recognition of their outstanding contributions to IAVSD since the foundation of IAVSD and to the advance of the science of vehicle dynamics

Report composed by Manfred Plöchl

ICA (International Commission for Acoustics)

www.icacommission.org

1. ICA Governance. The ICA is composed of the acoustical societies from member countries plus international affiliate organizations which themselves have individual members distributed across the world and also organize international conferences every one or two years.

The ICA is now composed of 47 Member Societies, 8 International Affiliate Members, and 5 Observer Members.

The 2020 ICA Board meetings were held online, on July 15 and 16. The ICA General Assembly convened on November 3 by means of the scrutiny of the votes of the online consultation, at which time the request from the AAVI (Indonesia) to become a full member and financial matters were approved.

2. International Year of Sound 2020-2021

The International Year of Sound 2020 (IYS 2020), an activity that the ICA has been working on for many years and which is supported by IUTAM, came into existence at the opening in Paris on 31 January 2020. The opening ceremony was a great success with the participation of representatives from several international scientific organizations. Soon after this opening it became clear that the impact of Covid-19 would curtail the outreach events that had been planned throughout the year and around the world. The request to extend IYS 2020 into 2021 was granted by the ICA Board, and thus the IYS is now a two-year celebration. The logo, modified slightly to incorporate both the original year and the extension, is now the International Year of Sound 2020-2021.

Due to the pandemic, very few of the activities originally planned for the IYS 2020 ultimately involved in-person participation. Many other activities, including major international conferences such as INTER-NOISE 2020, the Fall 2020 ASA Meeting in Chicago, and Forum Acusticum 2020, were held as e-conferences with considerable success. Other conferences were rescheduled for 2021. The extension of the IYS to

2021 allows more outreach activities to be held, and more societies and organizations to be involved in the celebration.

On the other hand, modern technology made possible the organization of web-based activities dedicated to the IYS. These tools facilitate transmission of the IYS message on *the importance of sound for society and the world* to a greater audience. The website <https://sound2020.org> is the go-to place for finding information on events, activities, and resources related to the IYS, and to remain current it has required continuous revision and updating. The website contains substantial information on both long-term activities and individual events, as well as on a wide variety of resources, and it continues to attract more than 3500 visitors per month.

Among the centrally coordinated projects of the IYS, a video on the importance of sound in our world, “Sounds of our Life”, was produced by Antonio Fiscetti, sponsored by the I-INCE. This video is available at www.youtube.com/watch?v=eK-ApCMQNhY&t=8s and www.youtube.com/watch?v=Y6HgT1iujwQ&t=2 .

A student competition, sponsored by the HEAD-Genuit Foundation, was launched in late 2019 to focus the attention of students on the importance of sound in our lives. Students in primary schools are asked to produce a drawing inspired by the motto of IYS 2020, “Importance of Sound for Society and the World”, as well as by the melody and refrain of the song “The Sound of the World”. High school students are asked to write a stanza with four verses (lines) in their own language and/or in English, inspired by the melody and the refrain of the song. Because of the disruptions in 2020 it was agreed to extend the competition to the end of April 2021.

In addition to communications by member organizations via their emails, newsletters, journals, etc., the IYS steering committee issued publications and presentations aimed at raising the awareness of the general public regarding the importance of living in an environment that makes optimal use of sound.

It is expected that by the end of 2021, and despite the unfortunate occurrence of the pandemic, ultimately the mission of the IYS will be accomplished.

3. ICA Registered Office. The Registered Office of the International Commission for Acoustics has been established in Madrid, at the headquarters of the Spanish Acoustical Society (SEA). Antonio Perez Lopez was appointed as Office Director for a period of three years during the ICA Board meeting.

4. Symposium Support. The ICA allocates up to EUR 5,000 annually for sponsorship of specialty symposia in acoustics. In conjunction with the Acoustical Society of

America (ASA), the ICA accepts applications for allocation of up to USD 2,000 for specialty symposia that comply with the conditions for the special ASA support.

There was one application for 2021 funding from the ICA/ASA Specialty Symposia sponsorship program. These applications were evaluated by a committee comprised of the ICA Executive Committee and the ASA Committee on International Research and Education (CIRE), and the funding allocations were approved by the ICA Board.

The symposium that was found to be eligible for funding is the International Conference cum Workshop on Rhythm of Happiness - Rhythm 2021 (India).

Several of the symposia funded in 2020 were postponed due to Covid-19.

5. ICA Congress. The 24th International Congress on Acoustics, ICA 2022 (www.ica2022korea.org), will be held in Gyeongju from October 24 to 28, 2022. The venue of ICA2022, Hwabaek International Convention Center (HICO, <http://www.crowncity.kr/hico/en/main/main.do>) was built specifically for international meetings and conventions. During ICA 2022, all participants will have exclusive use of all HICO facilities to themselves.

The Acoustical Society of Korea (ASK, <http://en.ask.or.kr/>) is ready and eager to host ICA 2022, which will be the first ICA congress in Korea. For almost 40 years, ASK has contributed to the development of acoustic education and research, and to the economy of Korea, by emphasizing the importance of sound in various industrial fields. It also has participated actively in the ICA, having hosted international conferences like Inter-Noise 2003 and ICSLP 2004. ASK will be honored to help promote the global advancement of acoustics by hosting a successful ICA 2022.

In addition to the academic events of ICA 2022, participants will be able to enjoy the unique Korean culture. Koreans have a well-known love of music, from K-pop to Western classical music to reinterpretations of traditional Korean music. It follows then that Koreans are highly sensitive to the quality of sound, not only in musical instruments but also in everyday products and the environment. As the cradle of the country's religion, philosophy, arts and, of course, music, Gyeongju can offer visitors an insight into the development of acoustics in Korea. Furthermore, the entire city is an open-air museum full of ancient history and relics, including four UNESCO World Heritage Sites: Bulguksa Temple, Seokguram Grotto, Yangdong Traditional Village, and the Gyeongju Historic Areas. In short, the unique and authentic glimpse of Gyeongju City into Korean culture makes it the ideal backdrop for ICA 2022.

The important dates for ICA2022 are as follows:

- Call for Abstracts/Registration: December 1, 2021

- Deadline for Abstract Submission: March 15, 2022

The Congress Chair is Prof. Jeong-Guon Ih, the Vice President of ICA and a Professor at the Korea Advanced Institute of Science and Technology (KAIST). Further detailed information can be obtained from the ICA 2022 website: <http://ica2022korea.org>.

Report composed by Mark Hamilton

ICF (International Congress on Fracture)

www.icfweb.org

The COVID crisis has changed the face of education and conferences. Use of platforms such as ZOOM have become commonplace. Meeting colleagues over coffee at conferences seems to be a pleasure of the past. ICF is optimistic that the 15th International Conference on Fracture will take place in Atlanta, Georgia, USA in person in June of 2023.

Downtown Atlanta is the heart of the 9th largest metropolitan area in the United States. Atlanta has flights offering non-stop service to more than 150 U.S. destinations and 60 international destinations and boasts many world-class attractions, making it the 7th most visited city in the U.S. The conference will be hosted at the Omni Hotel and the Georgia World Congress Center. Low cost housing will also be available in nearby Georgia Tech dormitories.

The conference is held every four years, and ICF15 will be returning to the continental United States after 34 years. It will focus on the latest interdisciplinary research in the field of fracture and is a must attend event for senior and young researchers, students, post-doctoral fellows, and industry professionals working in the field of fracture throughout the world. The web site may be found at www.icf15.org

The ICF15 program can accommodate up to 20 symposia. Select papers from the symposia will be published in special volumes of international journals with the symposium organizers serving as guest editors.

The ICF web site may be found at www.icfweb.org

Report composed by Leslie Banks-Sills

ICHMT (International Centre for Heat and Mass Transfer)

www.ichmt.org

As you well know, many international conferences scheduled in this year have been postponed or cancelled because of COVID-19. Meetings Organized by ICHMT and Co-Sponsored by ICHMT are also postponed to 2021. Details of these meetings can be found on the web site, <http://www.ichmt.org>.

Meetings to be Organized by ICHMT:

“3rd International Symposium on Convective Heat and Mass Transfer, CONV-21”, 13–18 June, 2021, Izmir, Turkey. The symposium Chairmen are Dr. Mourad Rebay, University of Reims, France and Dr. Alpaslan Turgut, Dokuz Eylul University, Izmir, Turkey. Detailed information can be found on the Web site:

<https://www.ichmt.org/conv-21>

“10th International Symposium on Turbulence Heat and Mass Transfer, THMT-21”, 6–9 July 2021, in St. Petersburg, Russia. The Symposium Chairman is Professor D. Markovich, Kutateladze Institute of Thermophysics, Siberian Branch of Russian Academy of Sciences, Russia. The Symposium Co-Chairmen are Professor K. Hanjalic, Delft University of Technology, The Netherlands; Professor K. Suga, Osaka Prefecture University, Japan. Detailed information can be found on the Web site:

<http://www.thmt-21.org/>

“8th International Symposium on Advances in Computational Heat Transfer, CHT-21” will be held in a full online format, during August 15–19, 2021. The Symposium Co-Chairmen are Professor Yogesh Jaluria, Rutgers University, USA and Professor Helcio R. B. Orlando, Federal University of Rio de Janeiro, UFRJ, Brazil. Detailed information can be found on the Web site: <https://www.ichmt.org/cht-21>

“4th International Symposium on Gas Turbine Heat and Mass Transfer, Turbine-21”, 1–31 October 2021, ?. The symposium Chairmen are Professor Richard Goldstein, University of Minnesota, USA and Professor Terrence W. Simon, University of Minnesota, USA. Web site is under construction.

Meetings to be Co-Sponsored by ICHMT:

“5-6th Thermal and Fluids Engineering Conference, TFEC-2021”, 26–28 May 2021. While they were planning to hold their meeting in New Orleans LA, due to ongoing COVID-19 concerns, the conference will be a virtual conference held entirely online. The Symposium Co-Chairmen are Dr. Ting Wang, University of New Orleans,

USA and Dr. Michael W. Plesniak, The George Washington University, USA. Detailed information can be found on the Web site: <https://www.astfe.org/tfec2021/>

“15th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, HEFAT-2021”, 26–28 July, 2021, in NH Collection Amsterdam Grand Hotel Krasnapolsky, Amsterdam, Netherlands. The symposium Chairman is Professor Josua P. Meyer, University of Pretoria, South Africa. Detailed information can be found on the Web site: <https://na.eventscloud.com/ehome/hefat2020>

“6th International Workshop on Heat/Mass Transfer Advances for Energy Conservation and Pollution Control, IWHT-2021”, 13–16 August 2021 in Harbin, China. The Symposium Co-Chairmen are Y.J. Li, Harbin Engineering University, China; Q.W. Wang, Xi’an Jiaotong University, China; Y.T. Chen, University of Nevada Las Vegas, USA. Detailed information can be found on the Web site: <http://iwht2021.hrbeu.edu.cn>

“14th International Conference on Thermal Engineering Theory and Applications, ICTEA-2021”, 26–28 October 2021, in Kuwait City, Kuwait. The Symposium Co-Chairmen are Professor Ali Chamkha, Kuwait College of Science and Technology, Kuwait and Professor M. Ziad Saghir, Ryerson University, Canada. Detailed information can be found on the Web site: <https://www.ictea.ca/>

“12th Mediterranean Combustion Symposium, MCS-2023”, 23–27 January 2023, Luxor, Egypt. The symposium Co-Chairmen are Dr. Federico Beretta, Consiglio Nazionale delle Ricerche, Napoli, Italy; Prof. Nevin Selcuk, Middle East Technical University, Ankara, Turkey; Prof. Mohy S. Mansour, American University in Cairo, Egypt and Prof. Andrea d’Anna, Università degli Studi di Napoli Federico II, Naples, Italy. Detailed information can be found on the Web site: <https://www.combustioninstitute.org/ci-event/12th-mediterranean-combustion-symposium/>

Report composed by Tugba Gün

ICM (International Conference on the Mechanical Behaviour of Materials)

<https://www.icm-13.com>

International Congress on the Mechanical Behaviour of Materials (ICM) has the objective to foster research on the mechanical behaviour of materials, to promote related international cooperation among scientists and engineers and to provide means for the public dissemination of the results from these efforts.

The congress holds International Conference on Mechanical Behaviour of Materials every four years, and last ICM-13 was held at Melbourne, Australia on 11-14 June 2019. At that conference, it was decided that the next ICM-14 will be held at Santiago, Republic of Chile in July 2023 (the date is tentative). During 2020, face-to-face executive committee meeting could not have been held. But ICM-14 in 2023 is planned as face-to-face conference at this moment. The ICM Executive Committee is planning to add some new members for the committee from other additional countries as the “Representatives of Each National Delegates”.

Report composed by Yoshihiko Uematsu

ICR (International Committee on Rheology)

<http://icrheology.org/dat/index.html>

The science of rheology is well-represented throughout the world. The major rheology meetings in North America, Europe, and Asia continue to attract greater numbers of registrants. The 2020 International Congress on Rheology was organized by the Brazilian Society of Rheology. Originally scheduled to be held in-person in Rio de Janeiro, it took place online from December 12 to 18, 2020 and attracted 877 participants from 41 countries. This healthy growth in the rheological community reflects the vital position of our science in addressing world-wide technological challenges in energy, the environment, and manufacturing.

The current roster of active member societies of the ICR can be found on the Committee’s website (<http://icrheology.org/dat/index.html>) and includes representation from 31 countries.

The XIXth International Congress on Rheology will be held in Athens, Greece. It will take place from July 29 to August 4, 2023 (<https://www.erasmus.gr/microsites/1221>), organized by Hellenic Society of Rheology. Chairman of the Organizing Committee is Prof. Dimitris Vlassopoulos, University of Crete.

The Congress in Athens initiates a scheduling of this meeting that avoids overlap with the ICTAM meetings.

Report composed by Gerald G. Fuller

ICTS (International Congresses on Thermal Stresses)

<https://www.tandfonline.com/toc/uths20/current>

The 13th ICTS had originally been planned to be held June 6-9, 2021, in Minneapolis, with Prof. Kumar K. Tamma serving as the General Chair. Due to the ongoing coronavirus pandemic, that congress was cancelled.

It has been decided to hold the 13th ICTS in June, 2023, in Luleå, Sweden, with Prof. Lars-Erik Lindgren serving as the General Chair.

Report composed by Martin Ostoja-Starzewski and Kumar K. Tamma

IIAV (International Institute of Acoustics and Vibration)

www.iiav.org

The Covid-19 pandemic beginning in early 2020 and continuing into 2021 has had a serious effect on IIAV functions. The ICSV annual congresses have been postponed and/or will be held only as virtual events, The Executive, Board of Directors and Members meetings were held in July 2020 as virtual events.

The organizational structure of IIAV, the International Institute of Acoustics and Vibration, is president, president-elect, two vice-presidents, secretary, and treasurer. The current officers are: President: Marek Pawelczyk, Poland; Immediate Past President, Eleonora Carletti, Italy; President-Elect, Jian Kang, UK; Vice-President for Professional Relations, Marek Pawelczyk, Poland; Vice-President for Communications, Hans Boden, Sweden; Secretary, Rupert Thornely Taylor, UK; Treasurer, Zhuang Li, USA.

There are twenty directors from different countries. IIAV also has an Executive Director, Malcolm Crocker, USA. The president serves a two-year term, the vice-presidents serve overlapping four-year terms, and the directors serve overlapping four-year terms. IIAV cooperates with scientific and engineering societies and institutes around the world and lists 52 such affiliated organisations on its website at www.iiav.org . IIAV also has individual members in 55 countries.

In July 2020 six new directors took up their positions. They were Davide Borelli, Italy; Jian Kang, UK; Yuri Khaletskii, Russia; Graham Parry, UK; Michel Rosmolen, Thailand; Jun Yang, China. Elections were held again in November 2020, and, as a result, five new directors and two officers, took up their positions. The new directors are Francesco Asdrubali, Italy; Adrian Brown, UK; Francisco Denia, Spain; Jim Kok,

The Netherlands; Roshun Pauroballi, Qatar; the new officers are VP for Professional Relations: John Davy, Australia; and President elect: Jian Kang, UK.

IIAV holds international congresses on sound and vibration annually in major cities all around the world. The Twenty-fifth International Congress on Sound and Vibration (ICSV25) took place in Hiroshima, Japan, 8-12 July 2018. ICSV25 was held in cooperation with the Japanese Acoustical Society. A total of 1029 abstracts from 52 different countries on all areas of acoustics, noise and vibration were received. ICSV26 was held in Montreal, Canada, 7-11 July 2019 in cooperation with the Canadian Acoustical Association. A total of 1015 abstracts from 55 different countries were received. The ICSV25 and ICSV26 technical proceedings were made available to all delegates at the congresses. The ICSV25 and ICSV26 proceedings include all abstracts and the full texts of all the accepted papers and are now also available open access to everyone on the IIAV website.

ICSV27 had been scheduled to take place live in Prague in July 2020, but because of the Covid-19 pandemic, the decision was made to postpone it twice by three years to July 2023 as ICSV29 (a total of 1489 abstracts were submitted). It is now planned to hold ICSV28 live in Singapore in July 2022 and ICSV30 live in St. Petersburg, Russia in July 2024.

The International Journal of Acoustics and Vibration (IJAV), the quarterly refereed journal of IIAV, continues to receive a steady flow of good papers and to be published on schedule. The full papers of current and all back issues of IJAV are displayed on the IIAV website. Issues of IJAV have now been made open access for all interested scientists and engineers around the world to view, starting with the first issue published in 2016. Each issue contains on average 10 to 15 full papers.

Report composed by Malcolm J. Crocker

IMSD (International Association of Multibody System Dynamics)

www.itm.uni-stuttgart.de/imsd

IMSD is a successor to the Joint International Conference on Multibody System Dynamics formed on May 26, 2010. It is the essential mission of the Association to establish biannual international conferences on multibody system dynamics that address computational mechanics, nonlinear dynamics and control design; to foster research on the dynamics of multibody systems and related fields; and to promote international cooperation between scientists and engineers in industry.

The IMSD conference is a biannual series that serves as a meeting point for the international multibody community and as an opportunity to exchange high-level, current information on the theory and applications of multibody systems. As a rapidly growing branch of engineering dynamics, Multibody System Dynamics is seeing more and more use, and is becoming increasingly important in the development of complex systems. The continual new challenges faced by the IMSD community demand productive conference forums where ideas are freely exchanged and a spirit of cooperation is encouraged.

Information about IMSD can be found at www.itm.uni-stuttgart.de/imsd including the activities, committees, bylaws, and more.

Every Year the IMSD International Steering Committee takes place next to a major Conference in the field. In the odd Years, the ECCOMAS Multibody Dynamics Conferences are to focal point while in the even Years, such as 2020, the meeting takes place during the IMSD Conference, which is organized every two Years. Due to the pandemic situation, and because the World travel was basically shut down during 2020, it was not possible to hold the IMSD Conference as planned in India, in November 2020. Furthermore, it was decided to postpone it to 2022, not being possible to substitute the onsite meeting by a telemeeting.

During 2020, a single conference was organized, Online Symposium on Flexible Multibody System Dynamics, September 21-22, 2020, by Olivier Bruls, Johannes Gerstmayr and Aki Mikkola.

The pandemic situation forced the postponement of the events scheduled for 2020 to 2021 or 2022, being those organized in the first 3 trimesters online, while the decision about presential meeting for the fourth semester still to be taken. The Conferences, initially scheduled for 2020 and postponed are:

International Symposium on Co-Simulation and Solver Coupling in Dynamics¹, to be held May 24-25, 2021, online.

The ECCOMAS Thematic Conference on Multibody Dynamics² will be held in December 12-15, 2021 in Budapest Hungary, onsite.

Our flagship biennial conference and the 6th in the series, IMSD 2020³, was postponed and will now be held in New Delhi, India, from 16-20 October 2022. IMSD 2022 is being held onsite in conjunction with the 10th Asian Conference on Multibody Dynamics, and a large number of attendees are expected.

¹ <http://lim.ii.udc.es/events/cosim2020/index.html>

² <http://eccomasmultibody2021.mm.bme.hu>

³ <http://imsdacmd2020.iitd.ac.in/>

IMSD displays some information on the association at the end of each number of the Springer journal *Multibody System Dynamics* which is the official journal of IMSD. This journal is the leading publication organ in multibody system dynamics.

Notable members of the International Steering Committee for IMSD include:

Jorge Ambrosio, Chairman of IMSD
John McPhee, Vice-Chairman of IMSD
Javier Cuadrado, Secretary of IMSD
Peter Eberhard, Representative of IMSD in IUTAM GA
Werner Schiehlen, Representative of IUTAM in IMSD ISC

Report composed by Jorge Ambrósio, John McPhee, and Javier Cuadrado

ISIMM (International Society for the Interaction of Mechanics and Mathematics)

<http://isimm.unipg.it>

The International Society for the Interaction of Mechanics and Mathematics fosters the interaction of mathematics and mechanics. The Society was founded in 1977 in Kozubnik in Southern Poland. There had been a planning period before that time which had culminated in a meeting in Lecce, Apulia, Italy two years earlier. The main activities of the Society consist in the organization of the *Symposium on Trend in Applications of Mathematics to Mechanics* (STAMM) and the publication of the book series *Interaction of Mechanics and Mathematics Series* (IMM), and, more recently, special issues gathering contributions from STAMM participants.

The 2020 activities of ISIMM has been deeply affected by the pandemic situation. The *XXII International Symposium of the Society* (STAMM) planned to be in Brescia has been postponed to a date to be defined in 2022. In any case the ISIMM Prize 2020 (ISIMM Medal) has been awarded to Prof. Robin Knops and the ISIMM Junior Prizes 2020 has been awarded to Dr. Vito Crismale and Dr. Michele Curatolo. An online event for the award ceremony is under organization in 2021. The special issue of the *International Journal of Non-linear Mechanics* byproduct of the XXI STAMM conference held in Oxford in 2018 has been published in November 2020 under the guidance of G. Tomassetti, A. Schlömerkemper, and G. Saccomandi. This special issue with title “Mathematics & Mechanics: Natural Philosophy in the 21st Century” included 12 contributions that readily show the mutual interaction of mathematics and mechanics.

In December 2020 the election of the new President, the new Secretary/Treasurer and of four new ordinary members has been conducted. As of January 2021 the Executive Committee is composed by seven members as follows:

- (i) Officers: Anja Schlömerkemper (president), Giuseppe Saccomandi (vice-president), Paolo Piovano (secretary/treasurer).
- (ii) Ordinary members: Bettina Detmann; Apala Majumdar; Alessandro Musesti; Yasemin Şengül Tezel.

Report composed by Paolo Piovano

ISSMO (International Society for Structural and Multidisciplinary Optimization)

www.issmo.net

1. Upcoming ISSMO Biennial World Congress on Structural and Multidisciplinary Optimization (WCSMO)

The *ISSMO Biennial World Congress on Structural and Multidisciplinary Optimization* (WCSMO-14) will take place virtually, 13-18 June 2021. Planning and organization are being led by Prof. Kurt Maute (University of Colorado Boulder) with Prof. James Guest (Johns Hopkins University), Prof. Julian Norato (University of Connecticut), Prof. Alireza Doostan (University of Colorado Boulder) and Prof. John Evans (University of Colorado Boulder).

Up-to-date information may be found at www.wcsmo14.org.

2. ISSMO endorsed the following international scientific meetings during 2020:

- ACSMO 2020 – *Asian Congress of Structural and Multidisciplinary Optimization*, Seoul, Korea, 23-25 November, 2020. <http://acsmo2020.org>
- AIAA Aviation 2020 – *AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference*, Virtual, 15-19 June, 2020.
- DAC/IDETC 2020 – *International Design Engineering Technical Conferences and Computers and Information in engineering Conference*, Virtual, 17-19 August 2020.
- 14th WCCM and ECCOMAS Congress, Virtual, 11-15 January, 2021. <https://www.wccm-eccomas2020.org/frontal/>

3. To date, ISSMO has endorsed the following international scientific meetings to

be held in 2021:

- 25th ICTAM Congress, postponed, Milan Italy, <https://www.ictam2020.org>
- AIAA Aviation 2020 – *AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference*, Virtual, 2-6 August, 2021.

4. New TOP webinar series

The Topology Optimization Webinar, or TOP Webinar, is a newly initiated series of webinars, serving the broad structural and multidisciplinary optimization community, with a focus on topology optimization. Our intention is to share the latest research and development in this field, and by doing so, to keep our community connected.

The webinar takes place monthly for a duration of 1.5 hours, started on June 2, 2021. Each webinar features recently published/accepted articles primarily in *Structural and Multidisciplinary Optimization* journal. They have been well-received during this challenging time of the pandemic, each consistently attended by well over 100 people internationally. They are organized by Jun Wu, Matthijs Langelaar, Fred van Keulen, and Niels Aage, Ole Sigmund and hosted at TU Delft.

Further information available at www.top-webinar.org and the past webinars are available at <https://www.youtube.com/channel/UCfknaFQBuT0tHJH8I4qLQ>.

5. Launching annual newsletter

ISSMO launched an annual newsletter series, with the first issue published in October 2020: <https://www.issmo.net/publications/newsletter/>

6. Early Career Special Committee

ISSMO EC initiated an early career special committee to encourage early career researchers to serve the ISSMO community in 2020. The first early career special committee is joined by Dr Hesaneh Kazemi (postdoctoral scholar, UC San Diego, USA), Professor X Shelley Zheng (Assistant professor, UIUC, USA), Professor Zunyi Duan (Associate professor, Northwestern Polytechnical University, China).

7. Haftka award

On August 17, 2020, one of the most prominent leader of the optimization and aerospace engineering communities with the tremendous impacts over the past 50 years, Profssor Raphael Haftka passed away. ISSMO established a new award, Haftka Young Investigator Award, in his honor, to celebrate the achievements of early career

researchers on an annual basis. The deadline for the nominations was Jan 31, 2021 and the first award will be announced at WCSMO-14.

Please consult the website www.issmo.net for more information about ISSMO.

Report composed by H. Alicia Kim and Wei Chen

LACCOTAM (Latin American & Caribbean Congress of Theoretical and Applied Mechanics)

There were no activities for LACCOTAM in 2020, as the attention of all our local academics/ LACCOTAM executive board was completely focused on the emergency delivery of online classes and virtual examinations as a result of the covid-19 pandemic. Tentative plans were made for a virtual seminar series in Fluid Mechanics, but we later decided to postpone the initiative, given the trajectory of the covid-19 pandemic in the region of Latin America and the Caribbean.

We have already identified experts in the field from India, Bangladesh, the United States of America and the United Kingdom, and we hope that we will finally be able to launch this initiative in May 2021. This virtual seminar series will be a collaborative effort between LACCOTAM and the Department of Mathematics and Statistics at the University of the West Indies, St. Augustine Campus, Trinidad and Tobago.

Report composed by Donna M. G. Comissiong

WCB (World Council of Biomechanics)

<https://wc-biomechanics.org>

The objective of the World Council of Biomechanics is to provide permanence and stability for the periodic meetings of the World Congress of Biomechanics every 4 years, and to communicate information about the World Congress and any associated satellite meetings, as well as about the scientific priorities in Biomechanics, to as many people interested in the subject as possible. The next World Congress of Biomechanics is planned to be held in Taipei in 2022. The World Council of Biomechanics has the responsibility for selection of future meeting sites. The World Council also sponsors specialty meetings especially in countries in which biomechanics is an evolving discipline.

Activities of the Council in 2020 include:

1. Planning for Ninth World Congress of Biomechanics

July 2022 | Taipei

The Council has held teleconferences with the organizers of World Congress of Biomechanics in 2022, reviewed documentation, and made suggestions to the organizers regarding various aspects of the conference.

2. Other Activities

The council coordinated enquiries related to potential host sites for the next Congress, to be held in North America in 2026. One bid was received from Vancouver, Canada, and assessment of this bid is ongoing.

For more details see <https://www.wc-biomechanics.org>

Report composed by Lynne Bilston

Reports on ISC and its Scientific Committees

ISC (International Science Council)

<https://council.science/>

The ISC is the worldwide co-ordinating body of Scientific Unions such as IUTAM. It is an international, non-governmental organization where scientists from both the natural and social sciences work together and engage in important scientific issues. It is also the largest global science organization of this type, with 40 international scientific unions (including IUTAM) and associations, and over 140 national and regional scientific organizations that include national academies and research councils of the various countries around the world. The ISC web-site is well laid-out and contains much useful information: see <https://council.science/>.

The ISC held an extraordinary general meeting on 1-5 February 2021, and the IUTAM President participated as a voting member in order for the ISC to modernise its statutes and rules of procedure. At the end of April, the ISC convened the second Global Forum of Funders, with participants from public, private, philanthropic and development aid sectors in more than 70 countries joining online discussions over three days. The aim of the Forum is to raise ambition to scale up funding efforts for science relevant to the Sustainable Development Goals. Peter Gluckman, ISC President-elect opened the Forum, urging the funding community to support science that focuses on finding the needed solutions to the challenges of the global commons. He asked funders to dig deep and reflect on their failures to date to effectively address the global commons issues and be open to change.

As part of the Transform21 portal, the ISC is sharing the latest resources from its Members and affiliated bodies. Recent publications include *Young people and Climate Change*, *The Risks to Australia of a 3°C Warmer World*, and *Reversing biodiversity loss – the case for urgent action*.

The ISC's COVID-19 Scenarios project is gaining momentum, convening world renowned experts in a range of natural and social sciences that will inform a report outlining range of scenarios over the mid- and long-term. The aim of the project, supported by the WHO and the UNDRR, is to assist our understanding of the options for achieving an optimistic and fair end to the pandemic. All ISC Members as well as their members and wider networks are invited to contribute scientific expertise that will inform the written report: see the project webpage: <https://council.science/covid-19-scenarios/>.

In summary, the ISC organises a wide range of events for the international Science community and much of ISC activity is of direct relevance to IUTAM: mechanics

will continue to play a major role in addressing global energy needs, in tackling climate change and in delivering more sustainable technologies.

Report composed by Norman Fleck, President of IUTAM

CODATA (Committee on Data)

<http://www.codata.org/>

2020 was a difficult year for CODATA as for most of the associations worldwide, strongly impacted by the COVID pandemic.

Most of the events were re-scheduled virtually, a quite natural alternative for associations and initiatives concerning data and virtuality.

The general assembly, December 15th, reported the 2020 highlights, among them (i) the Decadal Programme Progress; (ii) the UNESCO Recommendation on Open Science; (iii) the Report from the FAIR Convergence Symposium; (iv) the Task Group, Working Group and Project Highlights; (v) the Data Science Journal; (vi) the CODATA Connect Early Career Group; (vii) the Data Policy Committee; and (viii) the National Committees Activity. The main actions for 2021, some of them aligned with the just referred ones, were also introduced and discussed.

A very interesting (virtual) discussion on “Units of Measure for Humans and Machines: Making Units Clear for Machine Learning and Beyond” (*“If God wanted us to use the metric system, He would have given us ten fingers and ten toes”* — Judith Stone, *Light Elements: Essays in Science from Gravity to Levity*) was also organized end of September 2020 addressing major questions on the importance of units, initiatives around Digital Representation of Units of Measure, and requesting for ambassadors and use cases.

The discussions initiated in 2019, progresses in 2020, with different exchanges between CODATA (S. Hodson) and F. Chinesta (IUTAM representative in the data committee), and many of the identified opportunities programmed in 2020 were delayed to 2021, in particular:

- The involvement of CODATA into the IUTAM conference in data-driven mechanics, France, that will take place in 2022.
- Engineering discussion groups, again under the auspices of the French AFM to check the penetration and prospective around data in the different mechanical disciplines: solid, fluids, processes, biomechanics, thermal, tribology, etc. with a plenary meeting end of 2019.

- A first meeting grouping all scientific groups (mathematics, mechanics and other disciplines, with French academies, CNRS, INRIA and other institutions) & CODATA could take place in September or October 2021 depending on the COVID evolution because an “in life” meeting is preferred.

Report composed by Francisco Chinesta

COSPAR (Committee on Space Research)

<https://cosparhq.cnes.fr/>

The Committee on Space Research (COSPAR) was established by the International Council for Science (ICSU) in 1958. The Purpose of COSPAR is “to promote at an international level scientific research in space, with emphasis on the exchange of results, information, and opinions, and to provide a forum, open to all scientists, for the discussion of problems that may affect scientific space research. The objectives of COSPAR are to be achieved through the organization of scientific assemblies, publications, or any other means.” A capacity-building workshop on Coronal and Interplanetary Shocks was held in Kodaikanal, India, in January 2020. COSPAR updated its policy on Planetary Protection implementation requirements as an international standard to protect against interplanetary biological and organic contamination due to space exploration activities. The global COVID-19 pandemic severely impacted the events of COSPAR in 2020. The 43rd Scientific Assembly to connect space research for global impact was originally scheduled to take place in Sydney, Australia, in August 2020 was postponed to 28 January - 4 February 2021. The 44th Scientific Assembly is scheduled to take place in Athens, Greece, during 16-24 July 2022.

Report composed by Guruswami Ravichandran

SCOR (Scientific Committee on Oceanic Research)

<https://scor-int.org/>

Report will be provided when an IUTAM representative has been appointed.

Statutes

Statuts de l'Union Internationale de Mécanique Théorique et Appliquée

I «L'Union Internationale de Mécanique Théorique et Appliquée» ci-après dénommée «l'Union» est une organisation scientifique à la fois internationale et non-gouvernementale.

II* Les principaux objectifs de l'Union sont

- a) de constituer un lien entre les personnes et les organisations engagées dans le travail scientifique dans toutes les branches de la mécanique théorique et appliquée, par des recherches analytiques, numériques et expérimentales;
- b) d'organiser les congrès internationaux de mécanique théorique et appliquée par l'intermédiaire de son Comité permanent des Congrès (cf. Art. XIII ci-après), et d'organiser d'autres réunions internationales sur des sujets relevant de la mécanique théorique et appliquée;
- c) de s'engager en d'autres activités visant à promouvoir le développement de la mécanique, aussi bien théorique qu'appliquée, en tant que branche de la science.

*) *Article II adopté par l'Assemblée Générale de l'Union, le 18 août 2004 à Varsovie, Pologne*

III** L'autorité suprême de l'Union est son Assemblée Générale.

Cette Assemblée détient le pouvoir de décider sur toute question affectant l'Union, notamment sur toute modification de ses Statuts. Sur des questions spécifiées, elle peut déléguer tout ou partie de ses pouvoirs à un ou à des organismes appropriés.

La composition de l'Assemblée Générale est régie par l'article VI ci-après. Les réunions de l'Assemblée Générale doivent se tenir aux dates fixées par le Bureau de l'Union (cf. Art. XI ci-après) ou sur la demande de 10 Membres au moins de cette Assemblée. Une réunion de l'Assemblée Générale peut être tenue en présence physique des membres (réunion en personne) ou peut être tenue par des moyens électroniques (réunion virtuelle).

***) Article III adopté par l'Assemblée Générale de l'Union, le 27 mai 2020 par des moyens électroniques

IV Dans toutes ses décisions, l'Assemblée Générale doit être guidée par la tradition de libre coopération scientifique internationale développée par les Congrès Internationaux de Mécanique Théorique et Appliquée. En poursuivant ses objectifs,

l'Union respectera le principe général de non-discrimination et reconnaîtra le droit pour tout scientifique, partout dans le monde, d'adhérer ou de s'associer à une activité scientifique internationale sans rencontrer d'opposition pour motif de race, de religion, de philosophie politique, d'origine ethnique, de citoyenneté, de langage ou de sexe.

V*** Dans les votes de l'Assemblée Générale, chaque membre ne dispose que d'une voix. Pour une modification des Statuts, la majorité requise est de deux tiers des votes exprimés. Pour toute autre décision la majorité simple des votes exprimés est requise. Tout membre se trouvant dans l'impossibilité d'être présent à une réunion en personne peut désigner, à l'avance et par lettre ou messagerie électronique adressée au Secrétaire Général, un autre membre qu'il charge de voter en son nom.

Dans l'intervalle entre réunions de l'Assemblée Générale, un vote peut être émis par correspondance ou par des moyens électroniques sur proposition formulée par le Bureau (cf. Art. XII ci-après). En pareil cas, le résultat du vote n'est valablement obtenu que si le nombre des participants effectifs n'est pas inférieur aux deux tiers du nombre total des membres de l'Assemblée Générale.

***) *Article V adopté par l'Assemblée Générale de l'Union, le 24 juillet 2018 à Boston, États-Unis et modifié le 27 mai 2020 par des moyens électroniques*

VI**** L'Assemblée Générale se compose des membres suivants avec droit de vote:

- a) des représentants des «organisations adhérentes» (cf. art. VIII);
- b) des membres du Bureau (cf. art. XII);
- c) des membres cooptés par l'Assemblée Générale de l'Union;
- d) le Secrétaire du Comité de Congrès (cf. art. XIII c);
- e) les présidents des «Symposia Panels» Fluides et Solides nommés par le Bureau.

La durée de mandat d'un membre coopté est précisée, lors de son élection, par l'Assemblée Générale. La durée de mandat des membres du Bureau coïncide avec celle de leur appartenance au Bureau.

Les catégories suivantes d'observateurs sont invitées à participer, sans droit de vote, à l'Assemblée Générale de l'Union:

- i) des représentants des «organisations affiliées» (cf. art. XI);
- ii) les présidents des «Working Parties»;
- iii) des représentants des «organisations associées adhérentes» (cf. art. IX)
- iv) des représentants des pays candidats à l'adhésion;
- v) s'il y a lieu, et sur décision de l'Assemblée Générale, des représentants de comités ou groupes de scientifiques.

*****) *Article VI adopté par l'Assemblée Générale de l'Union, le 19 août 2014 à Lyngby, Danemark*

VII L'Assemblée Générale doit veiller à une représentation adéquate de tout groupe de scientifiques poursuivant des recherches en mécanique théorique ou appliquée et non représenté par une organisation adhérente.

VIII Les organisations de scientifiques en mécanique théorique ou appliquée (ou les unions de telles organisations) qui représentent effectivement une activité scientifique indépendante dans un pays ou dans un territoire bien défini peuvent être admises dans l'Union par l'Assemblée Générale comme «organisations adhérentes» pourvu que leur dénomination exclue tout malentendu quant à la qualification du pays ou du territoire en cause.

En principe, une seule organisation pourra être admise pour chaque pays ou chaque territoire.

IX***** Des organisations de scientifiques en mécanique théorique ou appliquée qui représentent une activité scientifique indépendante dans un pays ou dans un territoire du monde en voie de développement et qui ne sont pas déjà représentées par des « organisations adhérentes » de l'Union peuvent, avec le soutien écrit d'une « organisation adhérente », être admises en tant qu' « organisations associées adhérentes » de l'Union. La dénomination de l'organisation adhérente proposée doit être sans ambiguïté et politiquement neutre afin d'exclure tout malentendu quant à la qualification du pays ou du territoire qui est représenté.

*****) *Article IX adopté par l'Assemblée Générale de l'Union, le 27 août 2008 à Adélaïde, Australie*

X***** Chaque «organisation adhérente» dispose d'un certain nombre de représentants dans l'Assemblée Générale et doit acquitter une cotisation annuelle à l'Union (cf. Art. XV ci-après). Chaque « organisation associée adhérente » dispose d'un représentant dans l'Assemblée Générale de l'Union sous la forme d'un observateur sans droit de vote, et doit acquitter une seule cotisation tous les quatre ans (cf. Art. XVI ci-après).

*****) *Article X adopté par l'Assemblée Générale de l'Union, le 27 août 2008 à Adélaïde, Australie*

XI Des organisations internationales dont les domaines principaux d'activité sont en étroite relation avec ceux de l'Union peuvent être admises par l'Assemblée Générale en qualité «d'organisations affiliées» à l'Union.

Chaque organisation affiliée a la faculté de désigner un observateur qui est invité à participer, sans droit de vote, à l'Assemblée Générale de l'Union. Le Bureau de l'Union (Article XII) a réciproquement la faculté de désigner un observateur, sans droit de vote, à l'organe ayant une responsabilité équivalente dans l'organisation affiliée.

L'organisation affiliée et l'Union sont tenues de s'informer mutuellement de toutes leurs activités importantes et des mesures affectant leur fonctionnement. En préparant les rencontres scientifiques internationales qu'elles organisent, l'Union et chaque organisation affiliée sont tenues de prendre soigneusement en considération toutes les décisions déjà prises par l'Union et les organisations affiliées de manière à assurer la bonne coordination de toutes ces activités scientifiques.

Les organisations affiliées n'ont à payer aucune cotisation annuelle à l'Union.

XII***** Pour exécuter les décisions de l'Assemblée Générale et pour assurer entre ses sessions le travail de l'Union, l'Assemblée Générale élit les membres d'un Bureau pour une durée de quatre ans au plus. Le Bureau est composé d'un Comité Directeur (un Président, le précédent Président qui remplit la fonction de Vice-Président, un Secrétaire Général et un Trésorier) et de quatre autres personnes. Les candidats aux sept postes doivent avoir été membres de l'Assemblée Générale à un moment de la période précédant de six ans le moment de l'élection du Bureau.

Les membres, qui ne sont pas au Comité Directeur, ne peuvent recevoir plus de deux mandats consécutifs. Les membres du Bureau nouvellement élus entrent en fonction au 1^{er} novembre qui suit l'Assemblée Générale qui a procédé à leur élection.

Le Bureau doit se réunir au moins une fois par an. Tout membre du Bureau empêché de prendre part à une réunion de celui-ci peut désigner, par lettre adressée au Secrétaire Général, un autre membre de l'Assemblée Générale pour le remplacer.

C'est au Secrétaire Général que doivent être adressées toutes les questions concernant le fonctionnement de l'Union y compris ses relations avec les organisations adhérentes, affiliées ou autres.

Le domicile légal de l'Union se situe au domicile du Secrétaire Général.

Le Bureau a le droit de désigner un trésorier-assistant en tout pays où l'Union est titulaire d'un compte bancaire. Les trésoriers-assistants doivent être choisis parmi les membres de l'Assemblée Générale, mais non nécessairement parmi les membres du Bureau.

Le Bureau doit établir un budget prévisionnel pour l'année à venir, administrer les finances de l'Union et soumettre, chaque année, à l'Assemblée Générale un rapport financier.

Le Vice-Président doit normalement remplir les fonctions du Président pendant toute période où celui-ci se trouve empêché de les exercer.

Entre les réunions de l'Assemblée Générale, il incombe au Bureau de désigner un remplaçant temporaire pour remplir les fonctions du Vice-Président, du Secrétaire Général ou du Trésorier si cela s'avère nécessaire.

*****) *Article XII adopté par l'Assemblée Générale de l'Union, le 19 août 2014 à Lyngby, Danemark*

XIII***** L'Assemblée Générale désigne un Comité permanent des Congrès (dorénavant noté CC) chargé d'organiser à intervalles réguliers les Congrès Internationaux de Mécanique Théorique et Appliquée (ICTAM).

- a) Le Président de l'Union préside aussi le CC.
- b) Le CC nomme un Secrétaire parmi ses membres, sous entendu que cette personne soit d'accord pour être nommée. A partir de la recommandation du CC, l'Assemblée Générale élit le Secrétaire pour un mandat de quatre ans, renouvelable une fois. Il est souhaitable que le Secrétaire ait été membre du CC pour au moins quatre ans avant d'être nommé.
- c) Les Membres du CC sont élus par l'Assemblée Générale; ce sont des scientifiques actifs en mécanique théorique ou appliquée, n'appartenant pas nécessairement à l'Assemblée Générale. Avant une Assemblée Générale, le Secrétaire du CC sollicite des nominations des membres du CC, de l'Assemblée Générale, des organisations adhérentes et des organisations affiliées, et des autres sous-comités tels que les « Symposia Panels » et les « Working Parties ». La taille du CC ne doit pas dépasser un tiers de la taille de l'Assemblée Générale. Les mandats des membres du CC sont limités, sauf cas particuliers, à deux mandats successifs.

Il est souhaitable que la composition du CC soit représentative des différentes branches des sciences mécaniques ainsi que de la diversité de la communauté des sciences mécaniques.

- d) Le CC nomme un Comité Exécutif parmi ses membres. Le Président de l'IUTAM et le Secrétaire du CC jouent automatiquement les rôles respectifs de Président et de Secrétaire du comité exécutif. Quatre membres supplémentaires sont nommés. Le Président du Congrès International de Mécanique Théorique et Appliquée à venir peut également être nommé au sein du comité exécutif « ex officio ». L'un des prérequis pour être nommé au sein du comité exécutif est d'avoir une solide expérience de grands congrès. A partir des nominations effectuées par le CC, l'Assemblée Générale élit le comité exécutif du CC. Les

mandats des membres supplémentaires du comité exécutif CC sont limités à deux mandats successifs.

- e) Les règles de fonctionnement du CC sont soumises à l'approbation de l'Assemblée Générale.

*****) *Article XIII adopté par l'Assemblée Générale de l'Union, le 19 août 2014 à Lyngby, Danemark*

XIV***** Les ressources financières de l'Union sont constituées par:

- a) les cotisations annuelles des «organisations adhérentes»;
- b) les cotisations des « organisations associées adhérentes » ;
- c) les dons et subventions que l'Union peut recevoir.

L'Union doit tenir une liste de ses bienfaiteurs où doivent être mentionnés pour chaque année les noms des personnes ou institutions qui ont accordé à l'Union des dons, des legs ou des subventions.

*****) *Article XIV adopté par l'Assemblée Générale de l'Union, le 27 août 2008 à Adélaïde, Australie*

XV Le nombre des représentants d'une «organisation adhérente» et le montant de la cotisation annuelle qu'elle doit acquitter sont définis dans le tableau suivant, par la catégorie à laquelle elle désire appartenir, et avec l'accord de l'Assemblée Générale.

Catégorie	Nombre de représentants	Nombre d'unités de la cotisation annuelle
I	1	1
II	2	3
III	3	5
IV	4	8
V	5	12

Le montant de l'unité de cotisation annuelle est fixé par l'Assemblée Générale, au moins une année précédente celle à laquelle cette cotisation devient exigible.

XVI***** La cotisation d'une « organisation associée adhérente » est établie pour couvrir une période de quatre ans, et le montant de ce paiement unique est égal à la cotisation annuelle de l'année en cours d'une « organisation adhérente » de catégorie I. L'admission en tant qu'« organisation associée adhérente » devient effective dès réception de cette cotisation par le Trésorier. Le statut de chaque « organisation associée adhérente » est réexaminé après les quatre premières années, ainsi qu'après les quatre années suivantes. La catégorie de Membre Associé est normalement limitée à un maximum de huit ans. La possibilité de demander l'admission en tant que Membre de la Catégorie I est offerte à tout moment à un Membre Associé.

*****) *Article XVI adopté par l'Assemblée Générale de l'Union, le 27 Août 2008 à Adélaïde, Australie.*

XVII***** Toute proposition de modification des Statuts, présentée ou par le Bureau ou par le Secrétaire Général, et ayant reçu l'appui d'au moins dix membres de l'Assemblée Générale ayant le droit de vote, devra être envoyée aux membres de l'Assemblée Générale avec l'ordre du jour de la réunion de l'Assemblée Générale. Le débat sur de telles propositions devra s'effectuer au cours de la première session et le vote au cours de la seconde (Article V).

*****) *Article XVII adopté par l'Assemblée Générale de l'Union, le 28 Août 1994 à Amsterdam, Pays-Bas.*

Règles de fonctionnement du Comité des Congrès de l'Union*

1. Le Comité des Congrès se réunit à chaque fois que l'Assemblée Générale se réunit et une telle réunion doit suivre le format (en personne ou par des moyens électroniques (virtuelle)) de la réunion de l'Assemblée Générale. Typiquement, cela veut dire tous les deux ans, à l'occasion de l'Assemblée Générale entre congrès et à l'occasion du Congrès International.
2. Pendant un Congrès International, le CC passe en revue les propositions pour le Congrès International suivant et sélectionne le lieu par un vote des membres du CC présents (les votes par procuration ne sont pas autorisés). Ce processus de sélection se déroule au cours de deux réunions distinctes du CC.
3. Le Comité Exécutif est chargé de prendre au nom du CC toutes les décisions nécessaires pendant la période qui s'écoule entre deux réunions successives, et de lui en faire rapport à sa prochaine réunion. Le Secrétaire doit rester en contact avec tous les membres du CC et les solliciter lorsqu'il y a des questions importantes à traiter.
4. L'organisation effective d'un Congrès est confiée à un Président et à un Secrétaire-Général du Congrès, identifiés par l'organisation qui invite. Le Président et le Secrétaire-Général du Congrès sont responsables de tous les aspects du succès du Congrès, et en particulier de la publication des Comptes rendus du Congrès. Le Président et le Secrétaire-Général du Congrès maintiendront un dialogue constant avec le Comité Exécutif, feront un rapport annuel au Comité Exécutif et un rapport au CC à chaque réunion du CC, depuis le moment où le lieu a été choisi jusqu'à ce que le Congrès ait eu lieu.
5. Le Président et le Secrétaire-Général du Congrès devront obtenir l'approbation du CC (normalement par l'intermédiaire du Comité Exécutif) pour toutes les questions relevant de la politique générale du CC, en particulier pour celles qui concernent:

- 5.1. le but du Congrès;
 - 5.2. la sélection des communications pour le Congrès;
 - 5.3. le choix des conférences générales pour le Congrès;
 - 5.4. la désignation des présidents de sessions du Congrès;
 - 5.5. les principes généraux régissant les arrangements financiers du Congrès.
6. Les organisateurs percevront, de tous les membres du congrès, une contribution afin de couvrir les dépenses administratives du CC. Ces contributions seront reversées à l'IUTAM immédiatement après le congrès. Le montant de ces contributions restera du même ordre de grandeur de congrès à congrès.

**) Procédure adoptée par l'Assemblée Générale de l'Union, le 19 août 2014 à Lyngby (Danemark) et modifié le 27 mai 2020 par des moyens électroniques*

Règles pour l'élection du Bureau de l'IUTAM*

1. Lors de l'Assemblée Générale (AG) précédant celle au cours de laquelle le nouveau Bureau doit être élu, un Comité Electoral (CE) doit être élu comprenant le Président de IUTAM (qui assure la présidence de ce Comité) et deux à quatre membres de l'AG, non-membres du Bureau en exercice.
2. A la suite de cette élection, le CE invite les membres avec droit de vote et observateurs de l'AG, spécifiés dans l'Article VI des Statuts sous les rubriques a), b), c), i) et ii), à faire connaître à son Président, dans des délais fixés, leurs suggestions de candidatures pour le Bureau, c'est-à-dire pour les charges de Président (P), de Secrétaire Général (S), de Trésorier (T) et pour quatre autres postes. Toutes ces suggestions doivent être traitées confidentiellement par le CE.
3. Prenant en compte toutes les suggestions reçues, le CE doit soumettre au Secrétaire Général les noms proposés comme candidats au Bureau: un seul nom pour les charges P,S,T et un ou plusieurs noms pour chacun des quatre autres postes (W,X,Y,Z). Le CE doit s'assurer que tous les candidats ainsi proposés sont prêts à accepter leur élection. Toutes ces propositions sont portées par le Secrétaire Général à la connaissance des membres de l'AG avant la première session de l'AG au cours de laquelle le nouveau Bureau doit être élu.
4. Lors de cette première session d'autres propositions de candidatures peuvent être proposées pour chacun des postes P, S, T, W, X, Y, Z. Aucun candidat ne peut être proposé pour plus d'un seul poste.
5. Avant la seconde session de l'AG au cours de laquelle le nouveau Bureau doit être élu, chaque proposition envisagée au point 4 ci dessus pour pouvoir être acceptée doit recevoir l'appui d'au moins dix membres de l'AG ayant le droit de vote au moyen d'une déclaration écrite et signée et faire l'objet d'un engagement écrit de la personne

proposée indiquant qu'elle est prête à accepter son élection. Toute proposition ne remplissant pas ces conditions sera retirée.

6. Pour chacun des postes P, S, T, W, X, Y, S, l'AG est appelé à désigner le titulaire par un vote mettant en compétition les candidats restants. S'il y a plusieurs candidats pour un poste, le vote doit avoir lieu au scrutin secret.

**) Procédure adoptée par l'Assemblée Générale de l'Union, le 18 Août 2004 à Varsovie, Pologne*

Règles pour l'élection de Membres Cooptés par l'Assemblée Générale*

1. La procédure s'applique à l'élection et à la réélection des membres cooptés par l'Assemblée Générale mentionnés à l'article VI c) des Statuts.
2. Les propositions émanant des membres de l'Assemblée Générale ayant le droit de vote en vue de l'élection des membres cooptés, doivent parvenir au Bureau au moins trois mois avant l'Assemblée Générale au cours de laquelle ces propositions sont prises par elle en considération, en règle générale celle qui se tient pendant le Congrès International de Mécanique Théorique et Appliquée. Toutes ces propositions doivent être traitées confidentiellement par le Bureau.
3. Après avoir pris en compte toutes les propositions ainsi reçues le Bureau présente à l'Assemblée Générale une liste de celles qui sont jugées pouvoir recevoir de la part de l'Assemblée Générale un soutien raisonnable, pourvu cependant que le nombre total des membres cooptés n'excède pas $1/8$ environ du nombre total des membres ayant le droit de vote. La liste de ces propositions est communiquée à tous les membres de l'Assemblée Générale pendant la première session de la réunion de l'Assemblée au cours de laquelle doit avoir lieu le vote.
4. Une liste de propositions différente de celle présentée par le Bureau n'est recevable que si elle a recueilli le soutien d'au moins dix membres de l'Assemblée Générale avant la seconde session.
5. L'Assemblée Générale vote sur les listes de candidats qui font l'objet des paragraphes 3 et 4.

**) Procédure adoptée par l'Assemblée Générale de l'Union, le 26 Août 1992 à Haïfa, Israël*

Statutes of the International Union of Theoretical and Applied Mechanics

I. "The International Union of Theoretical and Applied Mechanics" hereinafter called "the Union" is an international non-governmental scientific organization.

II.* The principal objectives of the Union are

- a) to form a link between persons and organizations engaged in scientific work in all branches of theoretical and applied mechanics and related sciences, including analytical, computational and experimental investigations;
- b) to organize international congresses of theoretical and applied mechanics through a standing Congress Committee (Article XII), and to organize other international meetings for subjects falling within the field of theoretical and applied mechanics;
- c) to engage in other activities meant to promote development of mechanics, both theoretical and applied, as a branch of science.

**) Article II adopted by the General Assembly on August 18, 2004, in Warsaw, Poland*

III.** The highest authority of the Union is its General Assembly.

The General Assembly has the power to decide all questions affecting the Union, including alterations of the Statutes. On specified questions it may delegate its power to appropriate bodies.

The composition of the General Assembly is regulated in Article VI. Meeting of the General Assembly will take place at times decided by the Bureau (Article XII) or on the request of at least 10 members of the General Assembly. A meeting of the General Assembly may be held with physical attendance of members (in-person meeting) or may be held by electronic means (virtual meeting).

****) Article III adopted by the General Assembly on May 27, 2020 by electronic means*

IV. In all its decisions the General Assembly shall be guided by the tradition of free international scientific cooperation, developed in the International Congresses for Theoretical and Applied Mechanics. In pursuing its objectives the Union shall observe the basic policy of non-discrimination and affirm the rights of scientists throughout the world to adhere to or to associate with international scientific activity without regard to race, religion, political philosophy, ethnic origin, citizenship, language or sex.

V.*** In voting every member of the General Assembly shall dispose of one vote. For an alteration of the Statutes the majority required is 2/3 of the votes brought forward. For all other decisions a simple majority of the votes brought forward is required. Any member who is unable to attend an in-person meeting may by a letter or notification via electronic mail to the Secretary General constitute another member of the General Assembly as proxy.

Between meetings of the General Assembly voting may be carried out by correspondence or by electronic means upon proposals made by the Bureau (Article XII); in this case decisions will be valid only provided the number of persons taking part in the vote is not less than 2/3 of the total membership of the General Assembly.

***) *Article V adopted by the General Assembly on July 24, 2018, in Boston, USA and amended on May 27, 2020 by electronic means*

VI.**** The General Assembly is composed of

- a) representatives of the adhering organizations (Article VIII);
- b) members of the Bureau (Article XII);
- c) members-at-large;
- d) the Secretary of the Congress Committee (Article XIII c);
- e) the Chairs of the Fluids and Solids Symposia panels appointed by the Bureau.

The term of a member-at-large shall be determined by the General Assembly at the time of the election. The term of members of the Bureau shall coincide with their term of service on the Bureau.

The following categories of observers are invited to take part in the General Assembly without voting rights:

- i) representatives of affiliated organizations (Article XI);
- ii) chairmen of the Working Parties;
- iii) representatives of adhering associated organisations (Article IX);
- iv) representatives of countries applying for membership;
- v) representatives of committees and groups of scientists, if so decided by the General Assembly.

****) *Article VI adopted by the General Assembly on August 19, 2014, in Lyngby (Denmark)*

VII. The General Assembly shall provide for an adequate representation of any group of scientists carrying out research in theoretical or applied mechanics and not represented by an adhering organization.

VIII. Organizations of scientists in theoretical or applied mechanics (or unions of such organizations) which effectively represent independent scientific activity in a country or in a definite territory can be admitted by the General Assembly as adhering organizations of the Union provided they can be listed under a name that will avoid any misunderstanding about the country or territory represented. In general only one organization from each country or territory will be admitted.

IX.***** Organisations of scientists in theoretical or applied mechanics which represent independent scientific activity in a country or territory of the developing world and which are not already represented by an adhering organisation of the Union may, with the written support of one adhering organisation, be admitted as an adhering associate organisation of the Union. The name of the proposed adhering organisation must be unambiguous and politically neutral in order to avoid misunderstanding about the country or territory being represented.

*****) *Article IX adopted by the General Assembly on August 27, 2008, in Adelaide (Australia)*

X.***** Each adhering organization shall have representatives in the General Assembly of the Union, and pay an annual subscription to the Union in accordance with Article XV. Each adhering associate organisation shall have one representative as a nonvoting observer in the General Assembly of the Union, and shall pay a single subscription once for each four-year period in accordance with Article XVI.

*****) *Article X adopted by the General Assembly on August 27, 2008, in Adelaide (Australia)*

XI. International organizations mainly occupied in fields closely related to that of the Union can be admitted by the General Assembly as affiliated organizations of the Union.

Each affiliated organization has the right to appoint an observer, who is invited to take part in the General Assembly without voting rights. The Bureau of the Union (Article X) has the reciprocal right to appoint a nonvoting observer to the corresponding council or other executive body of the affiliated organization.

The affiliated organization and the Union are mutually obliged to keep each other informed about all important activities of and organizational measures taken.

In organizing international scientific meetings the Union and each of the affiliated organizations are obliged to consider carefully all measures already taken by the Union and its affiliated organizations in order to coordinate such international scientific activities.

Affiliated organizations pay no annual dues to the Union.

XII.***** To execute the decisions of the General Assembly and to carry out work between meetings, the General Assembly elects members of a Bureau for a period of at most four years. The Bureau consists of the officers (President, the retiring President who serves as Vice-President, Secretary-General, and Treasurer) and four other persons. The candidates for all seven positions must have been full, voting members of the General Assembly at some time within the six years preceding the time of election to the Bureau.

The maximum continuous period of service as a member of the Bureau, other than an officer, is limited to eight years. Newly elected members of the Bureau enter into office on the date of November 1, following the General Assembly at which they are elected.

The Bureau will meet at least every year. A member of the Bureau who is prevented from attending a meeting may by letter to the Secretary-General designate another member of the General Assembly as a replacement.

The Secretary-General will act as a permanent center for all matters affecting the Union, including relations with adhering, affiliated and other organizations.

The legal domicile of the Union shall be the place where the Secretary-General lives.

The Bureau is authorized to appoint Assistant-Treasurers in those countries where the Union has a bank account.

The Assistant-Treasurers must be members of the General Assembly but need not to be members of the Bureau.

The Bureau shall draft a budget for each coming year, and shall administer the finances. The Bureau shall submit an annual financial report to the General Assembly.

The Vice-President shall normally fulfill the duties of the President should the President become unable to discharge them.

Between meetings of the General Assembly the Bureau shall decide who shall undertake the duties of the Vice President, Secretary-General, or Treasurer should a temporary replacement be necessary.

*****) *Article XII adopted by the General Assembly on August 19, 2014, in Lyngby (Denmark)*

XIII.***** The General Assembly establishes a standing Congress Committee (henceforth abbreviated CC) which is responsible for the organization of International Congresses of Theoretical and Applied Mechanics at regular intervals.

a) The President of the Union shall also serve as chair of the CC.

b) The CC shall nominate a Secretary from its membership subject to that person's willingness to be nominated. Based on the CC nomination, the General Assembly elects the Secretary of the CC for a four-year term with the possibility of renewal for a second term. It is desirable that the Secretary should have been a member of the CC for at least four years prior to nomination.

c) Members of the CC are elected by the General Assembly as individuals active in theoretical and applied mechanics and need not be members of the General Assembly. Prior to a General Assembly, the Secretary of the CC shall invite nominations from members of the CC, the General Assembly, Adhering and Affiliated Organizations, and any appropriate subcommittees, such as the Symposia Panels and Working Parties. The size of the CC shall not exceed one-third the size of the General Assembly. Terms of service as a member of the CC shall generally be limited to two, successive four-year terms.

It is desired that the composition of the CC be representative of the various mechanics disciplines, and of the diversity of the mechanics community.

d) The CC shall nominate an Executive Committee from its membership. The President of IUTAM and the Secretary of the CC automatically serve as Chair and Secretary of the Executive Committee, respectively. Four additional members shall be nominated. The President of the upcoming International Congress may also be appointed to the Executive Committee ex officio. Experience with large congresses is a desirable quality of nominees for the Executive Committee. Based on the CC nominations, the General Assembly elects the Executive Committee of the CC. Terms of service of the additional members on the Executive Committee of the CC are generally limited to two four-year terms.

e) The rules of procedure of the CC shall be approved by the General Assembly.

*****) *Article XIII adopted by the General Assembly on August 19, 2014, in Lyngby (Denmark)*

XIV.***** The financial means of the Union are formed by:

- a) the annual subscriptions of the adhering organizations;
- b) the subscriptions of the adhering associate organisations;
- c) gifts and grants.

The Union shall maintain a roll of benefactors on which shall be inscribed annually the names of those persons or institutions which have accorded gifts, legacies or other subventions to the Union.

*****) *Article XIV adopted by the General Assembly on August 27, 2008, in Adelaide (Australia)*

XV. The number of representatives of an adhering organization and the amount of the annual subscription to be paid by that organization will be regulated according to one of the following categories, as proposed by the adhering organization and after approval of the General Assembly of the Union:

Category	Number of representatives	Units of annual subscription
I	1	1
II	2	3
III	3	5
IV	4	8
V	5	12

Changes in the amount of the unit annual subscription will be decided by the General Assembly not less than one year in advance.

XVI.***** The subscription of an associate adhering organisation shall be set to cover a four-year period, and the level of this single payment shall be equal to the current annual subscription of a Category I adhering organisation. Admission as an associate adhering organisation shall be conditional on receipt of this subscription by the Treasurer. The status of each adhering associate organisation shall be reviewed after the initial four years and again after a further four years. Associate Membership shall normally be limited to a maximum of eight years. The option to apply for Category I Membership shall be open to an Associate Member at any time.

*****) *Article XVI adopted by the General Assembly on August 27, 2008, in Adelaide (Australia)*

XVII.***** Any proposal for alteration of the Statutes either prepared by the Bureau or supported by statements to the General-Secretary signed by at least ten voting members of the General Assembly with voting rights, shall be sent to members of the General Assembly with the Agenda for a meeting of the General Assembly. Such proposals shall be discussed during the first session of that meeting and voted upon during the second session (Article V).

*****) *Article XVII adopted by the General Assembly on August 28, 1994, in Amsterdam, Netherlands*

Rules of procedure for the Congress Committee (CC) of IUTAM*

1. The CC shall hold meetings whenever the General Assembly meets and such a meeting shall follow the format (in-person or by electronic means (virtual)) of the General Assembly meeting. Typically, this is every two years, during the General Assembly meeting between congresses and during the International Congress.
2. During an International Congress, the CC shall review proposals for the next International Congress and select the location by a vote of the CC members present (i.e., proxy votes are not permitted). This selection process will typically be accomplished over two separate meetings of the CC.
3. The Executive Committee handles matters arising on behalf of the CC during the period between General Assemblies. At each General Assembly the Secretary of the CC reports on all such matters and their disposition since the last General Assembly. The Secretary should stay in close contact with the full membership of the CC and solicit input on substantive issues.
4. The actual organization of a Congress is delegated to a President and Secretary-General of the Congress, identified by the host. The President and the Secretary-General of the Congress are responsible to IUTAM for all aspects of the successful conduct of the Congress, including the publication of its Proceedings. The President and the Secretary-General of the Congress shall maintain an ongoing dialog with the Executive Committee, and shall make an annual report on progress to the Executive Committee, and a report to the full committee at every meeting of the CC, from the time the congress location is selected until the congress has been held.
5. The President and the Secretary-General of the Congress shall obtain the approval of the CC (often through the Executive Committee) with regard to all matters affecting the general policy of the CC, and in particular with regard to:
 - 5.1. the scope of the Congress;
 - 5.2. the screening of papers for the Congress;
 - 5.3. the selection of general lectures for the Congress;
 - 5.4. the appointment of chairs of sessions of the Congress;
 - 5.5. the broad principles regarding financial arrangements for the Congress.
6. Following the congress, the host will pay a fee to IUTAM equivalent to a percentage of the registration fee paid by all attendees. The Executive Committee will ascertain that the level of the fee is consistent from congress to congress.

**) Procedure adopted by the General Assembly on August 19, 2014, in Lyngby, Denmark and amended on May 27, 2020 by electronic means*

Procedure for election of the Bureau of IUTAM*

1. At the General Assembly (GA) preceding the one at which the new Bureau is to be elected, an Electoral Committee (EC) shall be elected, consisting of the President of IUTAM (who shall act as Chairman of the EC) and two to four members of the GA who are not members of the current Bureau.
2. Following its election, the EC shall invite from those voting members and observers of the GA indicated under a), b), c), i) and ii) in Article VI of the Statutes, within a specified time limit, suggestions for candidates for the Bureau, viz. for the Offices of President (P), Secretary-General (S) and Treasurer (T), and for the four non-Officer positions. All suggestions shall be treated confidentially by the EC.
3. Taking account of all suggestions received, the EC shall submit to the Secretary-General nominations for candidates for election to the Bureau: one name for each of the Officer positions (P, S, T) and one or more names for each of the non-Officer positions (W, X, Y, Z). The EC will make sure that the candidates thus nominated are willing to accept an election. These nominations shall be conveyed by the Secretary-General to the GA in advance of the first session of the meeting of the GA at which the new Bureau is to be elected.
4. At this first session, additional candidates may be proposed by members of the GA for each and any of the positions P, S, T, W, X, Y, Z. No candidate may be proposed for more than one position.
5. Before the second session of the GA at which the new Bureau is to be elected, the proposals under clause 4 above shall be accepted if supported by statements to the Secretary-General each signed by at least ten (voting) members of the GA and by written confirmation that each nominee is willing to accept election; otherwise they shall be considered withdrawn.
6. The GA shall vote separately on the surviving nominations for each of the positions P, S, T, W, X, Y, Z. In any case in which there is more than one candidate for a position, the vote shall be by secret ballot.

**) Procedure adopted by the General Assembly on August 18, 2004, in Warsaw, Poland*

Procedure for electing Members-at-Large of the General Assembly*

1. This procedure shall apply for the election and re-election of the Members-at-Large of the General Assembly (GA) provided for in Article VI(c) of the Statutes.
2. Proposals, by members of the GA with voting rights, for Members-at-Large must be received by the Bureau at least three months before the meeting of the GA at which

proposals are to be considered, normally during the International Congresses of Theoretical and Applied Mechanics (ICTAM). All proposals will be treated confidentially by the Bureau.

3. Taking into account all material received, the Bureau will present to the GA such proposals as it deems will have at least a reasonable support by the GA, provided however that the total number of Members-at-Large is not to exceed approximately one eighth (1/8) of the total GA membership with voting rights. Such proposals will be circulated to all members of the GA during the first session of meeting of the Assembly at which the proposals are to be voted on.
4. Proposals not identical with those presented by the Bureau are considered to be withdrawn, unless they are sustained and supported by at least ten members of the GA before its second session.
5. The GA will vote on those candidates mentioned in the proposals of §3 and §4.

**) Procedure adopted by the General Assembly on August 26, 1992, in Haifa, Israel*

List of Publications

Five categories of IUTAM publications can be distinguished:

a) **Annual Reports**

Since 1948, the Union has published a Report every year with detailed information on its activities. Since 2013, all these Annual Reports are available as pdf files on the IUTAM website.

b) **Newsletters**

At the meeting of the Bureau of IUTAM held in Warsaw in August 2001 it was agreed that the IUTAM Newsletter should be revived.

A primary purpose of the Newsletter, in conjunction with the IUTAM website, is to provide information concerning future activities of IUTAM, particularly its Symposia and Summer Schools, and concerning the International Congress of Theoretical and Applied Mechanics (ICTAM).

The Newsletter will also serve to keep members of IUTAM informed about any other current developments of concern to IUTAM. The IUTAM Newsletters are available from the IUTAM website.

c) **Proceedings of IUTAM Symposia**

Since 2018, the recommended form of publication of proceedings of IUTAM Symposia is the IUTAM Bookseries by Springer. The website of the series is <https://www.springer.com/series/7695>

From 2011 to 2017, the official publisher for proceedings of IUTAM Symposia was Elsevier, under the Procedia IUTAM series. Procedia IUTAM is open access. All proceedings are freely available on the website of Procedia IUTAM <https://www.sciencedirect.com/journal/procedia-iutam>

d) **Proceedings of the International Congresses on Theoretical and Applied Mechanics (ICTAM)**

Until 2008, they were only available by direct ordering from the publisher.

The Proceedings of ICTAM 2012 have been published under the Procedia IUTAM series. The link is www.sciencedirect.com/science/journal/22109838/10.

The Proceedings of ICTAM 2016 have been published under the Procedia IUTAM series. The link is www.sciencedirect.com/science/journal/22109838/20. All two-page abstracts of papers presented at ICTAM 2016 have been published by IUTAM and are available at www.iutam.org/publications/ictam-proceedings/ictam_2016.

e) **Publications on the history of IUTAM**

See page 112.

Proceedings of IUTAM Symposia

The Proceedings of IUTAM Symposia published since 2010 are listed below.
A complete listing of all published Proceedings can be found on the IUTAM website
<https://www.iutam.org>.

2010

- 10-1 *IUTAM Symposium on Computational Aero-Acoustics for Aircraft Noise Prediction* (Southampton, UK, March 29 – 31, 2010).
The Proceedings of the Symposium edited by Astley, Jeremy and Gabard, Gwenael have been published by Elsevier, 2011, as the first issue of the IUTAM e-Procedia series. Procedia IUTAM Volume 1
- 10-2 *IUTAM Symposium on Nonlinear Stochastic Dynamics and Control* (Hangzhou, China, May 10-14, 2010).
The Proceedings of the Symposium edited by Zhu, W.Q., Lin, Y.K. and Cai, G. Q. have been published by Springer, 2011. ISBN 978-94-007-0731-3
- 10-3 *IUTAM Symposium on Dynamics Modeling and Interaction Control in Virtual and Real Environments* (Budapest, Hungary, June 7-11, 2010).
The Proceedings of the Symposium edited by Stépán, Gábor, Kovács, László L. and Tóth, András have been published by Springer, 2010. ISBN 978-94-007-1642-1
- 10-4 *IUTAM Symposium on Bluff Body Wakes and Vortex-Induced Vibrations* (Capri, Italy, June 22-25, 2010).
The Proceedings of the Symposium edited by Leweke, Thomas and Williamson, Charles, have been published by Elsevier, as a special issue of the Journal of Fluids and Structures, Volume 27, Issues 5-6, Pages 637-884, July-August 2011.
- 10-5 *IUTAM Symposium on Nonlinear Dynamics for Advanced Technologies and Engineering Design (NDATED)* (Aberdeen, UK, July 27-30, 2010).
The Proceedings of the Symposium edited by Marian Wiercigroch and Giuseppe Rega have been published by Springer, 2013. ISBN 978-94-007-5742-4
- 10-6 *IUTAM Symposium on Surface Effects in the Mechanics of Nanomaterials and Heterostructures* (Beijing, China, August 8-12, 2010).
The Proceedings of the Symposium edited by Cocks, Alan and Wang, Jianxiang, have been published by Springer, 2012. ISBN 978-94-007-4910-8
- 10-7 *IUTAM Symposium on Human Movement Analysis and Simulation* (Leuven, Belgium, September 13-15, 2010).

The Proceedings of the Symposium edited by Jonkers, Ilse and Vander Sloten, Jos, have been published online, 2010,
www.mech.kuleuven.be/iutam2010/IUTAM_proceedings/index.html.
ISBN 978-94-6018-247-1

2011

- 11-1 *IUTAM Symposium on Mechanics of Liquid and Solid Foams*
(Austin, USA, May 8-13, 2011).
The Proceedings of the Symposium edited by Kyriakides, Stelios and Kraynik, Andrew, have been published by Elsevier, as a special issue of the International Journal of Solids and Structures, 2012, and of the Journal of Rheology, Volume 56, Issue 3, Pages i-665, May 2012.
- 11-2 *IUTAM Symposium on Linking Scales in Computations: From Microstructure to Macro-scale Properties* (Pensacola, USA, May 17-19, 2011).
The Proceedings of the Symposium edited by Cazacu, Oana, have been published by Elsevier, 2012, as the third issue of the IUTAM e-Procedia series. Procedia IUTAM Volume 3
- 11-3 *IUTAM Symposium on Human Body Dynamics*
(Waterloo, Canada, June 5-8, 2011).
The Proceedings of the Symposium edited by McPhee, John and Kovacs, Jozsef, have been published by Elsevier, 2011, as the second issue of the IUTAM e-Procedia series. Procedia IUTAM Volume 2
- 11-4 *IUTAM Symposium on Full-field Measurements and Identification in Solid Mechanics* (Cachan, France, July 4-8, 2011).
The Proceedings of the Symposium edited by Hild, F. and Espinosa, H.D., have been published by Elsevier, 2011, as the fourth issue of the IUTAM e-Procedia series. Procedia IUTAM Volume 4
- 11-5 *IUTAM Symposium on Impact Biomechanics in Sport*
(Dublin, Ireland, July 7-9, 2011).
The Proceedings of the Symposium edited by Michael Gilchrist and Manuel Forero Rueda have been published as a special issue of the Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, Volume 226, No 3-4, 2012.
- 11-6 *IUTAM Symposium on Computer Models in Biomechanics*
(Stanford University, USA, August 29 – September 02, 2011)
The Proceedings of the Symposium edited by Holzapfel, Gerhard A. and Kuhl, Ellen have been published by Springer, 2013. ISBN 978-94-007-5464-5

11-7 *IUTAM Symposium on 50 Years of Chaos: Applied and Theoretical* (Kyoto, Japan, November 28 – December 2, 2011).
The Proceedings of the Symposium edited by Hikihara, Takashi have been published by Elsevier, 2012, as the fifth issue of the IUTAM e-Procedia series. Procedia IUTAM Volume 5

11-8 *IUTAM Symposium on Bluff Body Flows* (Kanpur, India, December 12-16, 2011).
The Proceedings of the Symposium edited by Mittal, Sanjay and Biswas, Gautam have been published as a special issue of the Journal of Fluids and Structures, Volume 41, Pages 1-186, August 2013.

2012

12-1 *IUTAM Symposium on Mobile Particulate Systems: Kinematics, Rheology and Complex Phenomena* (Bangalore, India, January 23-27, 2012).
The Proceedings of the Symposium edited by P.R. Nott, R.H. Davis, M. Reeks, D. Saintillan and S. Sundaresan have been published as a special issue of Physics of Fluids, Volume 25, Issue 7, July 2013.

12-2 *IUTAM Symposium on Advanced Materials Modelling for Structures* (Paris, France, April 23-27, 2012).
The Proceedings of the Symposium edited by Altenbach, Holm and Kruch, Serge have been published by Springer, 2013. ISBN 978-3-642-35167-9

12-3 *IUTAM Symposium on From Mechanical to Biological Systems: an Integrated Approach* (Izhsvesk, Russia, June 5-10, 2012).
The Proceedings of the Symposium edited by V.V. Kozlov and A.V. Borisov have been published as a special issue of Regular and Chaotic Dynamics, Volume 18, No. 1-2, 2013.

12-4 *IUTAM Symposium on Waves in Fluids: Effects of Nonlinearity, Rotation, Stratification and Dissipation* (Moscow, Russia, June 18-22, 2012).
The Proceedings of the Symposium edited by Y. Chashechkin and D. Dritschel have been published by Elsevier, 2013, as the eighth issue of the IUTAM e-Procedia series. Procedia IUTAM Volume 8

12-5 *IUTAM Symposium on Multiscale Problems in Stochastic Mechanics* (Karlsruhe, Germany, June 25-28, 2012).
The Proceedings of the Symposium edited by C. Proppe and J.-M. Bourinet have been published by Elsevier, 2013, as the sixth issue of the IUTAM e-Procedia series. Procedia IUTAM Volume 6

12-6 *IUTAM Symposium on Fracture Phenomena in Nature and Technology* (Brescia, Italy, July 1-5, 2012).

- The Proceedings of the Symposium edited by D. Bigoni, A. Carini, M. Gei and A. Salvadori have been published as a Special Issue of the International Journal of Fracture, Volume 184, Issues 1-2, November 2013, and by Springer, 2014. ISBN 978-3-319-04396-8
- 12-7 *IUTAM Symposium on Understanding Common Aspects of Extreme Events in Fluids* (Dublin, Ireland, July 2-6, 2012).
The Proceedings of the Symposium edited by M. Bustamante, A.C. Newell, R.M. Kerr and M. Tsubota have been published by Elsevier, 2013, as the ninth issue of the IUTAM e-Procedia series. Procedia IUTAM Volume 9
- 12-8 *IUTAM Symposium on Topological Fluid Dynamics: Theory and Applications* (Cambridge, UK, July 23-27, 2012).
The Proceedings of the Symposium edited by H.K. Moffatt, K. Bajer and Y. Kimura have been published by Elsevier, 2013, as the seventh issue of the IUTAM e-Procedia series. Procedia IUTAM Volume 7
- 12-10 *IUTAM Symposium on Particle Methods in Fluid Mechanics* (Lyngby, Denmark, October 15-17, 2012).
The Proceedings of the Symposium edited by J.H. Walther have been published by Elsevier, 2016, in the IUTAM e-Procedia series.
Procedia IUTAM Volume 18
- 2013**
- 13-1 *IUTAM Symposium on Vortex Dynamics: Formation, Structure and Function* (Fukuoka, Japan, March 10-14, 2013).
The Proceedings of the Symposium edited by Y. Fukumoto have been published as a special issue of Fluid Dynamics Research, Volume 46, No. 3, 2014.
- 13-2 *IUTAM Symposium on Nonlinear Interfacial Wave Phenomena from the micro- to the macro-scale* (Limassol, Cyprus, April 14-18, 2013).
The Proceedings of the Symposium edited by Papageorgiou D.T., Smyrlis, Y.S., Vanden-Broeck J.-M. and Christodoulides, P. have been published by Elsevier, 2014, as the eleventh issue of the IUTAM e-Procedia series. Procedia IUTAM Volume 11
- 13-3 *IUTAM Symposium on Recent Development of Experimental Techniques under Impact Loading* (Xi'an, China, May 6-10, 2013).
The Proceedings of the Symposium edited by Yulong Li and Han Zhao have been published as a special issue of the International Journal of Impact Engineering, Volume 79, 2015.

- 13-4 *IUTAM Symposium on Materials and Interfaces under High Strain Rate and Large Deformation* (Metz, France, June 17-21, 2013).
The Proceedings of the Symposium edited by S. Mercier, J.F. Molinari and D. Rittel have been published as a special issue of *Mechanics of Materials*, Volume 80, Part B, pp 163-374, 2015.
- 13-5 *IUTAM Symposium on Multiscale Modeling and Uncertainty Quantification of Materials and Structures* (Santorini Island, Greece, September 9-11, 2013).
The Proceedings of the Symposium edited by M. Papadarakakis and G. Stefanou have been published by Springer, 2014. ISBN 978-3-319-06330-0
- 13-6 *IUTAM Symposium on the Dynamics of Extreme Events Influenced by Climate Change* (Lanzhou, China, September 23-25, 2013).
The Proceedings of the Symposium edited by N. Huang have been published by Elsevier, 2016, as the seventeenth issue of the IUTAM e-Procedia series.
Procedia IUTAM Volume 17

2014

- 14-1 *IUTAM Symposium on Transition and Turbulence in the Flow through Deformable Tubes and Channels* (Bangalore, India, January 20-24, 2014).
The Proceedings of the Symposium edited by Shankar, V. and Kumaran, V. have been published as a special issue of *Sadhana*, Volume 40, Issue 3, May 2015.
- 14-2 *IUTAM Symposium on Mechanics of Soft Active Materials* (Haifa, Israel, May 12-15, 2014).
The Proceedings of the Symposium edited by Volokh, K. and Jabareen, M. have been published by Elsevier, 2015, as the 12th issue of the IUTAM e-Procedia series. *Procedia IUTAM Volume 12*
- 14-3 *IUTAM Symposium on Connecting Multiscale Mechanics to Complex Material Design* (Evanston, USA, May 13-16, 2014).
The Proceedings of the Symposium edited by Liu, W.K., Fish, J., Chen, J.S. and Camanho, P.P. have been published as a special issue of *Computational Mechanics*, Volume 57, Issue 3, March 2016.
- 14-4 *IUTAM Symposium on Micromechanics of Defects in Solids* (Seville, Spain, June 9-13, 2014).
The Proceedings of the Symposium edited by Ariza, P., Ortiz, M. and Tvergaard, V. have been published as a special issue of *Mechanics of Materials*, Volume 90, Pages 1-268, November 2015.
- 14-5 *IUTAM Symposium on Dynamical Analysis of Multibody Systems with Design Uncertainties* (Stuttgart, Germany, June 9-13, 2014).

- The Proceedings of the Symposium edited by Hanss, M. have been published by Elsevier, 2015, as the 13th issue of the IUTAM e-Procedia series.
Procedia IUTAM Volume 13
- 14-7 *IUTAM Symposium on Dynamics of Capsules, Vesicles and Cells in Flow* (Compiègne, France, July 15-18, 2014).
The Proceedings of the Symposium edited by Barthès-Biesel, D., Blyth, M.G. and Salsac, A.-V. have been published by Elsevier, 2015, as the 16th issue of the IUTAM e-Procedia series. Procedia IUTAM Volume 16
- 14-8 *IUTAM Symposium on Innovative Numerical Approaches for Multi-Field and Multi-Scale Problems* (Burg Schnellenberg, Germany, September 1-4, 2014).
The Proceedings of the Symposium edited by Weinberg, K. and Pandolfi, A. have been published in the Lecture Notes in Applied and Computational Mechanics series by Springer, 2016. ISBN 978-3-319-39021-5
- 14-9 *IUTAM Symposium on Complexity of Nonlinear Waves* (Tallinn, Estonia, September 8-12, 2014).
The Proceedings of the Symposium edited by Salupere, A. and Maugin, G.A. have been published as a special issue of the Proceedings of the Estonian Academy of Sciences, Volume 64, Issue 3S, 2015.
- 14-10 *IUTAM Symposium on Multiphase Flows with Phase Change: Challenges and Opportunities* (Hyderabad, India, December 8-11, 2014).
The Proceedings of the Symposium edited by Sahu, K.C. have been published by Elsevier, 2015, as the 15th issue of the IUTAM e-Procedia series.
Procedia IUTAM Volume 15
- 14-11 *IUTAM Symposium on Advances in Computation, Modeling and Control of Transitional and Turbulent Flows* (Goa, India, December 15-18, 2014).
The Proceedings of the Symposium edited by Sengupta, T.K, Lele, S.K., Sreenivasan, K.R. and Davidson, P.A. have been published by World Scientific, 2016. ISBN 978-981-4635-15-8
- IUTAM-ABCM Symposium on Laminar Turbulent Transition* (Rio de Janeiro, Brazil, September 8-12, 2014).
The Proceedings of the Symposium edited by Medeiros, M.A.F. and Meneghini, J.R. have been published by Elsevier, 2015, as the 14th issue of the IUTAM e-Procedia series. Procedia IUTAM Volume 14
- 2015**
- 15-2 *IUTAM Symposium on Ductile Failure and Localization* (Paris, France, March 17-20, 2015).

The Proceedings of the Symposium edited by Mohr, D. and Ravi-Chandar, K. have been published as a special issue of the International Journal of Fracture, Volume 200, Issue 1-2, 2016.

15-3 *IUTAM Symposium on Growing Solids*
(Moscow, Russia, June 23-27, 2015).

The Proceedings of the Symposium edited by Manzhairov, A.V., Altenbach, H., and Gupta, N. have been published by Elsevier, 2017, as the 23rd issue of the IUTAM e-Procedia series. Procedia IUTAM Volume 23

15-4 *IUTAM Symposium on Analytical Methods in Nonlinear Dynamics*
(Frankfurt, Germany, June 6-9, 2015).

The Proceedings of the Symposium edited by Hagedorn, P. and Clerkin, E. have been published by Elsevier, 2016, as the 19th issue of the IUTAM e-Procedia series. Procedia IUTAM Volume 19

2016

16-1 *IUTAM Symposium on Filling Gaps in Material Property Space*
(Cambridge, UK, March 14-16, 2016).

The Proceedings of the Symposium edited by Deshpande, V.S. and Fleck, N.A. have been published as a special issue of Extreme Mechanics Letters, Volume 10, Pages 1-78, 2017.

16-2 *IUTAM Symposium on Mechanics of Stretchable Electronics*
(Hangzhou, China, March 17-18, 2016).

A report on the Symposium by Song, J. has been published in Journal of Applied Mechanics, Volume 83, 128001, 2016.

16-3 *IUTAM Symposium on Helicity, Structures and Singularity in Fluid and Plasma Dynamics* (Venice, Italy, April 11-15, 2016).

The Proceedings of the Symposium edited by Fukumoto, Y., Ricca, R.L., Boyland, P., and Eggers, J. have been published as a special issue of Fluid Dynamics Research, Volume 50, Issue 1, 2018.

16-4 *IUTAM Symposium on Advances in Biomechanics of Hearing*
(Stuttgart, Germany, May 17-20, 2016).

The Proceedings of the Symposium edited by Ziegler, P. have been published by Elsevier, 2017, as the 24th issue of the IUTAM e-Procedia series. Procedia IUTAM Volume 24

16-5 *IUTAM Symposium on Dynamic Instabilities in Solids*
(Madrid, Spain, May 17-20, 2016).

- The Proceedings of the Symposium edited by Rittel, D. and Rodriguez-Martinez, J.A. have been published as a special issue of *Mechanics of Materials*, Volume 116, 2018.
- 16-6 *IUTAM Symposium on Nanoscale Physical Mechanics* (Nanjing, China, May 23-27, 2016).
The Proceedings of the Symposium edited by Guo, W. have been published by Elsevier, 2017, as the 21st issue of the IUTAM e-Procedia series. *Procedia IUTAM* Volume 21
- 16-7 *IUTAM Symposium on Integrated Computational Structure-Material Modeling of Deformation and Failure under Extreme Conditions* (Baltimore, USA, June 20-22, 2016).
The Proceedings of the Symposium edited by Ghosh, S. and Bronkhorst, C.A. have been published as a special issue of *Computational Mechanics*, Volume 61, Issue 1-2, 2018, and as a special issue of the *International Journal of Fracture*, Volume 208, Issue 1-2, 2017.
- 16-8 *IUTAM Symposium on Jet Noise Modelling and Control* (Palaiseau, France, September 28-30, 2016).
The Proceedings of the Symposium edited by Lesshafft, L., Jordan, P. and Agarwal, A. have been published as a special issue of *Comptes Rendus Mécanique*, Volume 346, Issue 10, 2018.
- 16-9 *IUTAM Symposium on Storm Surge Modelling and Forecasting* (Shanghai, China, October 17-20, 2016).
The Proceedings of the Symposium edited by Liu, H. and Dias, F. have been published by Elsevier, 2017, as the 25th issue of the IUTAM e-Procedia series. *Procedia IUTAM* Volume 25
- 16-10 *IUTAM Symposium on Nonlinear and Delayed Dynamics of Mechatronic Systems* (Nanjing, China, October 17-21, 2016).
The Proceedings of the Symposium edited by Wang, Z., Insperger, T., and Zhang, L. have been published by Elsevier, 2017, as the 22nd issue of the IUTAM e-Procedia series. *Procedia IUTAM* Volume 22
- 2017**
- 17-3 *IUTAM Symposium on Multi-Scale Fatigue, Fracture and Damage of Materials in Harsh Environments* (Galway, Ireland, August 28 – September 1, 2017).
The Proceedings of the Symposium edited by Leen, S., O'Donoghue, P. and Barrett, R. have been published as a special issue of the *International Journal of Fatigue*, October 2018.

- 17-4 *IUTAM Symposium on Wind Waves* (London, UK, September 4-8, 2017).
The Proceedings of the Symposium edited by Grimshaw, R., Hunt, J., and Johnson, E. have been published by Elsevier, 2018, as the 26th issue of the IUTAM e-Procedia series. Procedia IUTAM Volume 26
- 17-5 *IUTAM Symposium on Intelligent Multibody Systems – Dynamics, Control, Simulation* (Sozopol, Bulgaria, September 11-15, 2017).
The Proceedings of the Symposium edited by Zahariev, E.V. and Cuadrado, J. have been published by Springer, 2019, as Volume 33 of the IUTAM Bookseries. ISBN 978-3-030-00527-6
- 17-6 *IUTAM Symposium on Co-Simulation and Solver Coupling – Recent Developments in Theory and Application* (Darmstadt, Germany, September 18-20, 2017).
The Proceedings of the Symposium edited by Schweizer, B. have been published by Springer, 2019, as Volume 35 of the IUTAM Bookseries. ISBN 978-3-030-14883-6
- 2018**
- 18-1 *IUTAM Symposium on Recent Advances in Moving Boundary Problems in Mechanics* (Christchurch, New Zealand, February 12-15, 2018).
The Proceedings of the Symposium edited by Gutschmidt, S., Hewett, J.N. and Sellier, M. have been published by Springer, 2019, as Volume 34 of the IUTAM Bookseries. ISBN 978-3-030-13720-5
- 18-4 *IUTAM Symposium on Model Order Reduction of Coupled Systems (MORCOS 2018)* (Stuttgart, Germany, May 22-25, 2018).
The Proceedings of the Symposium edited by Fehr, J. and Haasdonk, B. have been published by Springer, 2020, as Volume 36 of the IUTAM Bookseries. ISBN 978-3-030-21012-0
- 18-7 *IUTAM Symposium on Critical Flow Dynamics Involving Moving/Deformable Structures with Design Applications* (Santorini Island, Greece, June 18–22, 2018).
The Proceedings of the Symposium edited by Braza, M., Hourigan, K. and Triantafyllou, M.S. have been published by Springer, 2021, as Volume 147 of the series Notes on Numerical Fluid Mechanics and Multidisciplinary Design. ISBN 978-3-030-55593-1
- 18-8 *IUTAM Symposium on Mechanical Environments of Living Cells* (Xi'an, China, June 28-30, 2018).

- The Proceedings of the Symposium edited by Xu, F., Lu, T.J., Genin, G.M. and Huang, G. have been published as a special issue of *Acta Mechanica Sinica*, Volume 35, Issue 2, 2019.
- 18-9 *IUTAM Symposium on Exploiting Nonlinear Dynamics for Engineering Systems (ENOLIDES 2018)* (Novi Sad, Serbia, July 15-19, 2018).
The Proceedings of the Symposium edited by Kovacic, I. and Lenci, S. have been published by Springer, 2020, as Volume 37 of the IUTAM Bookseries. ISBN 978-3-030-23691-5
- 18-11 *IUTAM Symposium on Mechanics of Electro/Magneto-Active Materials and Structures* (Beijing, China, August 26-30, 2018).
The Proceedings of the Symposium edited by Li, F. and Hong, W. have been published as a focus collection in *Smart Materials and Structures*, Volume 28, Issues 2-5, 2019.
- 18-13 *IUTAM Symposium on Architected Material Mechanics* (Chicago, USA, September 17-19, 2018).
The Proceedings of the Symposium edited by Siegmund, T. and Barthelat, F. have been published as a special issue of the *Journal of Applied Mechanics*, Volume 86, Issue 11, 2019.
- 2019**
- 19-1 *IUTAM Symposium on Phase Transformations in Shape Memory Materials: Modeling and Applications* (Austin, TX USA, April 28 – May 2, 2019).
The Proceedings of the Symposium edited by Shaw, J.A., Stebner, A., Landis, C.M. and Kyriakides, S. have been published as a special issue of the *International Journal of Solids and Structures*, Volume 221, 2021.
- 19-6 *IUTAM Symposium on Laminar Turbulent Transition* (London, UK, September 2 – September 6, 2019).
The Proceedings of the Symposium edited by Sherwin, S., Schmid, P. and Wu, X. have been published by Springer, 2021, as Volume 38 of the IUTAM Bookseries. ISBN 978-3-030-67901-9.
- 19-7 *IUTAM Symposium on Viscoplastic Fluids: from Theory to Application (VPF8)* (Cambridge, UK, September 16 – September 20, 2019).
The Proceedings of the Symposium edited by McKinley, G., Wilson, D.I. and Hewitt, D. have been published as an article collection in the *Journal of Non-Newtonian Fluid Mechanics*, 2020-2021.

Proceedings of the International Congresses on Theoretical and Applied Mechanics (ICTAM)

Until September 4, 1964 the organization of the International Congresses for Applied Mechanics was supervised by the "International Committee for the Congresses of Applied Mechanics" and for each Congress the organization was separately entrusted to a local Organizing Committee who also undertook the publication of the Proceedings. Consequently, there is no central point from which Proceedings may be ordered, and for each volume, application must be made to the publishers who took care of that particular volume.

Since September 4, 1964 the same task will be fulfilled by the Standing Congress Committee of IUTAM, and local Organizing Committees to be established.

The titles of the volumes and the names of the publishing firms are given below.

1st Congress, Delft (Netherlands), 22-26 April 1924.

Proceedings of the First International Congress for Applied Mechanics, Delft 1924, edited by C.B. Biezeno and J.M. Burgers (one vol.). Technische Boekhandel en Drukkerij J.Waltman Jr. Delft, 1925. No more copies are available for sale at Delft.

2nd Congress, Zürich (Switzerland), 12-17 September 1926.

Verhandlungen - Comptes rendus - Proceedings of the 2nd International Congress for Applied Mechanics, Zürich, 12-17 September 1926, herausgegeben von E. Meissner (one vol.). Orell Füssli Verlag, Zürich und Leipzig, 1927.

3rd Congress, Stockholm (Sweden), 24-29 August 1930.

Verhandlungen - Comptes rendus - Proceedings of the 3rd International Congress for Applied Mechanics, herausgegeben von A.C.W. Oseen und W. Weibull (3 vol.). AB. Sveriges Litografiska Tryckerier, Stockholm, 1931.

4th Congress, Cambridge (UK), 3-9 July 1934.

Proceedings of the Fourth International Congress for Applied Mechanics, Cambridge, UK, 3-9 July, 1934 (one vol.). University Press, Cambridge (UK), 1935.

5th Congress, Cambridge (Massachusetts, USA), 12-16 September 1938.

Proceedings of the Fifth International Congress for Applied Mechanics, held at Harvard University and the Massachusetts Institute of Technology, Cambridge, Massachusetts, September 12-16, 1938, edited by J.P. den Hartog and H. Peters (one vol.), John Wiley and Sons, Inc. New York (USA), and Chapman and Hall Ltd. London (UK), 1939.

6th Congress, Paris (France), 22-29 September 1946.

Proceedings not published (were given in the hands of Gauthier-Villars, Paris).

7th Congress, London (UK), 5-11 September 1948.

Proceedings of the Seventh International Congress for Applied Mechanics, 1948, published by the Organizing Committee (Introduction, Vol. I, Vol. II - Parts 1 and 2, Vol. III, Vol. IV).

8th Congress, Istanbul (Turkey), 20-28 August 1952.

Proceedings published by the Organizing Committee (Vol. I, Vol. II). Faculty of Sciences, University of Istanbul, P.O. Box 245, Istanbul (Turkey), 1953.

9th Congress, Brussels (Belgium), 5-13 September 1956.

Proceedings published by the Organizing Committee (Vol. I to Vol. VIII). Free University of Brussels, 50, avenue Franklin-Roosevelt, Brussels (Belgium), 1957.

10th Congress, Stresa (Italy), 31 August-7 September 1960.

Proceedings published by the Consiglio Nazionale delle Ricerche, Piazzelle delle Scienze 7, Roma (Italia), printed by Elsevier Publishing Company, Amsterdam-New York, 1962.

11th International Congress on Theoretical and Applied Mechanics (ICTAM), Munich (Germany), 30 August-5 September 1964.

The Proceedings, edited by H. Görtler, have been published by Springer-Verlag, Heidelberger Platz 3, Berlin (Germany), 1966.

12th International Congress on Theoretical and Applied Mechanics (ICTAM), Stanford, Cal. (USA), 26-31 August 1968.

The Proceedings, edited by M. Hetényi and W.G. Vincenti, have been published by Springer-Verlag, Berlin (Germany), 1969.

13th International Congress on Theoretical and Applied Mechanics (ICTAM), Moscow (USSR), 21-26 August 1972.

The Proceedings, edited by E. Becker and G.K. Mikhailov, have been published by Springer-Verlag, Berlin (Germany), 1973.

14th International Congress on Theoretical and Applied Mechanics (ICTAM), Delft (Netherlands), 30 August-4 September 1976.

The Proceedings, edited by W.T. Koiter, have been published by North-Holland Publishing Company, Amsterdam-New York-Oxford, 1976, 1977.

15th International Congress on Theoretical and Applied Mechanics (ICTAM), Toronto (Canada), 17-23 August 1980

The Proceedings, edited by F.P.J. Rimrott and B. Tabarrok, have been published by North-Holland Publishing Company, Amsterdam-New York-Oxford 1980.

16th International Congress on Theoretical and Applied Mechanics (ICTAM),
Lyngby (Denmark), 19-25 August 1984.

The Proceedings, edited by F.I. Niordson and N. Olhoff, have been published by Elsevier Science Publishers (North-Holland), Amsterdam, 1985.

17th International Congress on Theoretical and Applied Mechanics (ICTAM),
Grenoble (France), 21-27 August 1988.

The Proceedings, edited by P. Germain, M. Piau and D. Caillerie, have been published by North-Holland, Elsevier Science Publishers, Amsterdam, 1989. ISBN 0-444-87302-3

18th International Congress on Theoretical and Applied Mechanics (ICTAM),
Haifa (Israel), 22-28 August 1992.

The Proceedings, edited by S.R. Bodner, J. Singer, A. Solan and Z. Hashin, have been published by Elsevier Science Publishers, Amsterdam, 1993. ISBN 0-444-88889-6

19th International Congress on Theoretical and Applied Mechanics (ICTAM),
Kyoto (Japan), 25-31 August 1996.

The Proceedings, edited by T. Tatsumi, E. Watanabe, T. Kambe, have been published by Elsevier Science Publishers, Amsterdam, 1997. ISBN 0-444-82446-4

20th International Congress on Theoretical and Applied Mechanics (ICTAM),
Chicago (USA), 27 August-2 September 2000.

The Proceedings, entitled "Mechanics for a new Millenium and edited by H. Aref and J.W. Phillips, have been published by Kluwer Academic Publishers, Dordrecht, The Netherlands, 2001. ISBN 0-7923-7156-9

21st International Congress on Theoretical and Applied Mechanics (ICTAM),
Warsaw (Poland), 15-21 August 2004.

The Proceedings, entitled "Mechanics of the 21st Century" and edited by W. Gutkowski and T.A. Kowalewski, have been published by Springer, Dordrecht, The Netherlands, 2005. ISBN 1-4020-3456-3

22nd International Congress on Theoretical and Applied Mechanics (ICTAM),
Adelaide (Australia), 24-29 August 2008.

The Proceedings, entitled "Mechanics Down Under" and edited by J. Denier and M. Finn, have been published by Springer, Dordrecht, The Netherlands, 2013, both as an eBook (ISBN 978-94-007-5968-8) and as a Hardcover (ISBN 978-94-007-5967-1).

23rd International Congress on Theoretical and Applied Mechanics (ICTAM),
Beijing (China), 19-24 August 2012.

The Proceedings, entitled "Mechanics for the World" and edited by Y. Bai, J. Wang and D. Fang, have been published by Elsevier, 2014, as the tenth issue of the IUTAM e-Procedia series. Procedia IUTAM Volume 10

24th International Congress on Theoretical and Applied Mechanics (ICTAM),
Montreal (Canada), 22-26 August 2016.

The Proceedings, entitled "Mechanics – Foundation of Multidisciplinary Research" and edited by J. M. Floryan, have been published by Elsevier, 2017, as the twentieth issue of the IUTAM e-Procedia series. Procedia IUTAM Volume 20

All 2-page papers presented during ICTAM 2016 are collected in the e-book entitled "Contributions to the Foundations of Multidisciplinary Research in Mechanics", edited by J.M. Floryan and published by IUTAM, 2017. The book is available on the IUTAM website. ISBN 978-0-660-05459-9

Publications on the history of IUTAM

IUTAM - A Short History,

edited by S. Juhasz, has been published by Springer- Verlag, Berlin, Germany, 1988. ISBN 978-3-540-50043-8 (Print), 978-3-642-45649-7 (Online).

The short history is dedicated to the memory of Professor Theodore von Karman who had an essential role in the formation of IUTAM. Contributions by S. Juhasz, Sir James Lighthill, G. Battimelli, J. Hult, N.J. Hoff, D.C. Drucker and F.I. Niordson are included in the book.

The second, updated and revised, edition of the book:

IUTAM - A Short History, Second Edition,

edited by P. Eberhard and S. Juhasz, has been published by Springer International Publishing, 2016. ISBN 978-3-319-31061-9 (Print), 978-3-319-31063-3 (Online); DOI: 10.1007/978-3-319-31063-3.

The book is available free of charge at www.springer.com/de/book/9783319310619.

Mechanics at the Turn of the Century,

edited by W. Schiehlen and L. van Wijngaarden, has been published by Shaker Verlag, Aachen, Germany, 2000. ISBN 3-8265-7714-0.

This Report is the result of an initiative of the Bureau of IUTAM to provide some landmarks on the developments in Mechanics during the 20th Century, to report on the 50 years of impulse to Mechanics by the International Union of Theoretical and Applied Mechanics (IUTAM), to visualize by a poster Meters of Motion on the occasion of the 20th International Congress of Theoretical and Applied Mechanics (ICTAM), to look ahead on a very personal basis and to show the broad international involvement of scientists in IUTAM in recent years.

The booklet “Mechanics at the Turn of the Century” is accessible free of charge on the website of Shaker Verlag. The internet address is www.shaker.de and search for Schiehlen as the author. Moreover, this booklet is available upon request at the IUTAM Secretariat.

Details of all IUTAM publications may be found at

<https://www.iutam.org/publications/>

<https://www.iutam.org>

ISBN-978-83-65550-26-2