



NEWSLETTER

President's Address

Short Report on IUTAM Bureau Meeting, August 2007

Short Report on IUTAM XCCC Meeting, August 2007

IUTAM Symposia 2008, 2009

IUTAM Summer Schools 2008 and 2009

Co-sponsored Events 2008

**Proposals for IUTAM Symposia and IUTAM Summer Schools
for 2010 and 2011**

International Congress, XXII ICTAM, Adelaide, August 2008

IUTAM Home Page:

<http://www.iutam.net>

or: <http://www.iutam.org> or: <http://www.iutam.info>

International Union of Theoretical and Applied Mechanics

N-2007-2

November 2007

President's Address

Dear Colleagues,

Plans for ICTAM 2008, which is scheduled for August in Adelaide, are well set, but their implementation requires continuing effort and diligence. The Congress offers an unmatched opportunity to get a sense of the state of our discipline of mechanics, across regional boundaries and spanning its various branches. For me, past Congresses have been always interesting and, from time to time, enlightening and surprising. The principal lecturers and the sessions being organized are listed by title elsewhere in the Newsletter.

Some unique aspects of the 22nd Congress are that the prizes created by Cambridge University Press and by Elsevier Ltd. will be awarded for the first time, and a representative of the International Council of Science (ICSU, of which IUTAM is a member Union) will address the General Assembly on significant policy changes in its operations which have been implemented.

I encourage all mechanics colleagues to submit papers for consideration for inclusion in the Congress by the International Papers Committee, and to join us in Adelaide to get a sense of the breadth and vitality of our discipline and to experience the cordiality of colleagues from down under.

Ben Freund
President of IUTAM

Short Report on the Meeting of the IUTAM Bureau, held in Beijing on 18-19 August 2007

In 2007 the IUTAM Bureau meeting was held in two sessions on 18 and 19 August in the Beijing Friendship Hotel in China.

Among the items discussed at the meeting were the following:

- **Matters concerning Adhering and Affiliated Organizations.**
The state of affairs with respect to some of the Adhering and Affiliated Organizations was discussed.
- **Matters concerning IUTAM Working Parties.**
The reports on the Working Parties were discussed and the membership of the Working Parties was reviewed.
- **Matters concerning ICSU and Inter-Union Committees.**
The results of ICSU's Scientific Unions meeting, held in Rome in April 2007 were discussed. Prominent on the Agenda were the ICSU priority areas and the ICSU Regional Offices.
- **Reports by the Treasurer and the Secretary-General.**
The financial state of the Union was discussed, as well as the call for proposals for IUTAM Symposia and IUTAM Summer Schools for 2010 and 2011.
- **Fluid and Solid Mechanics Prizes**
The Bureau agreed with the creation of the Batchelor Prize for Fluids Mechanics and the Rodney Hill Prize in Solid Mechanics, to be awarded for the first time at ICTAM-2008 in Adelaide.
- **Report by the Committee on Associate Membership**
The Bureau supported the revisions proposed by the Committee, taking account of the remarks made by the 2006 General Assembly in Providence, thereby making some additional suggestions. The revised proposal will be sent to the 2008 General Assembly for approval.
- **Beijing International Centre for Theoretical and Applied Mechanics**
The Bureau supported the developments with respect to this Centre. Provided some conditions are met, it will be proposed to the 2008 General Assembly to accept this Centre as an Affiliated Organization.

Dick van Campen
Secretary-General of IUTAM

Short Report on the Meeting of the Executive of the Congress Committee, held in Beijing on 18-19 August 2007

This was the final meeting of the Executive before the 22nd ICTAM in Adelaide in August 2008. It was almost entirely taken up with detailed planning of the Congress and preparation of the Final Announcement. In particular, the lists of speakers for the Opening and Closing Lectures, the Sectional Lectures and the Introductory Lectures for the Mini-Symposia were reviewed, as was the list of co-chairs for the Prenominate Sessions (PNS). A very few gaps remained in the latter and suggestions for filling them were gratefully received by the Secretary.

A new feature of ICTAM2008 is that two new prizes will be awarded, the G K Batchelor Prize for Fluid Mechanics and the Rodney Hill Prize for Solid Mechanics. The prizewinners will deliver special lectures during the Congress.

Members of the Executive made suggestions for changes to the draft of the Final Announcement that had been prepared by the Local Organising Committee (LOC). These changes have been implemented, and the lists of names completed, and the Final Announcement can now be viewed on the Congress website (<http://ictam2008.adelaide.edu.au>).

Other matters discussed and finalised were:

- electronic paper submission and handling procedure;
- mechanism of support for younger participants;
- timetable for the countdown to the Congress;
- Congress budget and registration fee;
- Tasks for the International Papers Committee, which will Meet in Adelaide in March-April, 2008.

There was a brief discussion of preliminary actions for choosing the location of the 23rd ICTAM in 2012. Two firm bids have been received; it was agreed to announce to the Mechanics community that the deadline for the final forms of all bids to be received by the Secretary, including any new bids, should be 31 May, 2008.

Tim Pedley
Secretary IUTAM Congress Committee

IUTAM Symposia 2008

GA.06-15 (=S.12) IUTAM Symposium on Theoretical, Modelling and Computational Aspects of Inelastic Media

Place: **Cape Town, South Africa**
Date: **January 14-18, 2008**
Chairman: **Prof. B.D. Reddy**
University of Cape Town, Centre for Research in
Computational and Applied Mechanics, Private Bag X3,
7701 Rondebosch, South Africa,
email: daya.reddy@uct.ac.za

IUTAM Representative on Scientific Committee: Prof. G. Maier

GA.06-07 (=S.2) IUTAM Symposium on Modelling Nanomaterials and Nanosystems

Place: **Aalborg, Denmark**
Date: **May 19-22, 2008**
Chairman: **Prof. R. Pyrz**
Aalborg University, Department of Mechanical
Engineering, Pontoppidanstraede 101, 9200 Aalborg
East, **email:** rp@ime.aau.dk

IUTAM Representative on Scientific Committee: Prof. L.B. Freund

GA.06-12 (=S.7) IUTAM Symposium on Cellular, Molecular and Tissue Mechanics

Place: **Woods Hole, Cape God, Massachusetts, USA**
Date: **June 18-21, 2008**
Chairman: **Dr. G. Krishna**
University of Michigan, Department of Mechanical
Engineering, 2350 Hayward, Ann Arbor, MI 48109,
USA, **email:** krishna@umich.edu

Co-Chairman: **Dr. E. Arruda**
University of Michigan, Department of Mechanical
Engineering, 2350 Hayward, Ann Arbor, MI 48109,
USA, **email:** arruda@umich.edu

IUTAM Representative on Scientific Committee: Prof. J. Engelbrecht

**GA.06-14 (=S.11) IUTAM Symposium on Variational Concepts with
Applications to the Mechanics of Materials**

Place: **Bochum, Germany**
Date: **September 22-26, 2008**
Chairman: **Prof. K. Hackl**
Ruhr University Bochum, Lehrstuhl fuer Allgemeine
Mechanik, 44780 Bochum, Germany,
email: Klaus.Hackl@rub.de

IUTAM Representative on Scientific Committee: Prof. M.P Bendsøe

**GA.06-01 (=F.1) IUTAM Symposium on 150 Years of Vortex
Dynamics**

Place: **Lyngby, Denmark**
Date: **October 12-17, 2008**
Chairman: **Prof. H. Aref**
Virginia Tech, College of Engineering, 333 Norris Hall
(0217), VA 24061 Blacksburg, USA
Email: haref@vt.edu

IUTAM Representative on Scientific Committee: Prof. H.K. Moffatt

GA.06-11 (=S.6) IUTAM Symposium on Progress in the Theory and Numerics of Configurational Mechanics

Place: **Kaiserslautern, Germany**
Date: **October 20-24, 2008**
Chairman: **Prof. P. Steinmann**
University of Kaiserslautern, Applied Mechanics,
Gottlieb-Daimler-Strasse, 67653 Kaiserslautern,
Germany, **email:** ps@rhrk.uni-kl.de

IUTAM Representative on Scientific Committee: Prof. L.B. Freund

GA.06-02 (=F.2) IUTAM Symposium on Turbulence in the Atmosphere and Oceans

Place: **St. Andrews, UK**
Date: **December 08-12, 2008**
Chairman: **Prof. D.G. Dritschel**
University of St. Andrews, Department of Applied
Mathematics, North Haugh, St Andrews KY16 9SS,
UK, **email:** dgd@mcs.st-and.ac.uk

IUTAM Representative on Scientific Committee: Prof. H.K. Moffatt

GA.06-10 (=S.5) IUTAM Symposium on Multi Functional Material Structures and Systems

Place: **Bangalore, India**
Date: **2008, no exact dates available yet**
Chairman: **Prof. B. Dattaguru**
Indian Institute of Science, Bangalore, Department of
Aerospace Engineering, Bangalore 560 012, India,
email: datgur@aero.iisc.ernet.in

IUTAM Representative on Scientific Committee: Prof. J. Dual

IUTAM Symposia 2009

GA.06-09 (=S.4) IUTAM Symposium on Emerging Trends in Rotor Dynamics

Place: **New Delhi, India**
Date: **2009, March 23-26, 2009**
Chairman: **Prof. K. Gupta**
Indian Institute of Technology, Delhi, Mechanical Engineering Department, PO: IIT Haus Khas, New Delhi – 10016, India, **email:** kgupta@mech.iitd.ernet.in

IUTAM Representative on Scientific Committee: Prof. D.H. van Campen

GA.06-08 (=S.3) IUTAM Symposium on Recent Advances of Acoustic Waves in Solids

Place: **Taipei, China-Taipei**
Date: **May 25-28, 2009**
Chairman: **Prof. T.-T. Wu**
National Taiwan University, Institute of Applied Mechanics, Taipei 106, China-Taipei, **email:** wutt@ndt.iam.ntu.edu.tw

IUTAM Representative on Scientific Committee: Prof. J. Engelbrecht

GA.06-04 (=F.6) IUTAM Symposium on Laminar-Turbulent Transition

Place: **Stockholm, Sweden**
Date: **June 23-26, 2009**
Chairman: **Prof. D. Henningson**
Royal Institute of Technology (KTH), Department of Mechanics, Osquars Backe 18, SE-10044 Stockholm, Sweden, **email:** henning@mech.kth.se

IUTAM Representative on Scientific Committee: Prof. P. Huerre

GA.06-03 (=F.3) IUTAM Symposium on The Physics of Wall-bounded Turbulent Flows on Rough Walls

Place: **Cambridge, UK**

Date: **July 07-09, 2009**

Chairman: **Dr. T.B. Nickels**

University of Cambridge, Engineering Department,
Trumpington Street, Cambridge CB2 1PZ, UK,
email: tbn22@eng.cam.ac.uk

IUTAM Representative on Scientific Committee: Prof. A. Kluwick

GA.06-05 (=F/S.2) IUTAM-ISIMM Symposium on Mathematical Modeling and Physical Instances of Granular Flows

Place: **Reggio Calabria, Italy**

Date: **2009, no exact dates available yet**

Chairman: **Prof. J. Goddard**

University of California at San Diego, Department of
Mechanical and Aerospace Engineering, 9500 Gilman
Drive, La Jolla, CA 92093-0411, USA,
email: jgoddard@ucsd.edu

IUTAM Representative on Scientific Committee: Prof. C. Cercignani

GA.06-06 (=S.1) IUTAM Symposium on The Vibration Analysis of Structures with Uncertainties

Place: **St. Petersburg, Russia**

Date: **2009, no exact dates available yet**

Chairman: **Prof. A. Belyaev**

Russian Academy of Sciences, Institute of Problems in
Mechanical Engineering, VO, Bolshoi pr. 61, St. Peters-
burg 199178, Russia, **email:** belyaev@director.ipme.ru

Co-Chairman: **Prof. R. Langley**

University of Cambridge, Engineering Department,
Cambridge CB2 1TN, UK, **email:** rsl21@cam.ac.uk

IUTAM Representative on Scientific Committee: Prof. D.H. van Campen

GA.06-13 (=S.8) IUTAM Symposium on Dynamic Fracture and Fragmentation

Place: **Albuquerque, USA**
Date: **2009, no exact dates available yet**
Chairman: **Prof. K. Ravi-Chandar**
The University of Texas at Austin, Center for
Mechanics of Solids, Structures and Materials, 210 E.
24th Street, WRW 117B, 1 University Station, C0600,
Austin, Texas 78712-0235, USA,
email: kravi@mail.utexas.edu

IUTAM Representative on Scientific Committee: Prof. L.B. (Ben) Freund

GA.06-16 (=S.14) IUTAM Symposium on Multiscale Modelling of Fatigue, Damage and Fracture in Smart Materials Systems

Place: **Freiberg, Germany**
Date: **2009, no exact dates available yet**
Chairman: **Prof. M. Kuna**
Technische Universitaet Bergakademie Freiberg,
Institute of Mechanics and Fluid Dynamics, 09596
Freiberg, Germany,
email: Meinhard.Kuna@imfd.tu-freiberg.de

IUTAM Representative on Scientific Committee: Prof. W. (Wei) Yang

IUTAM Summer Schools 2008 and 2009

2008 **IUTAM - CISM Summer School on Advanced
Integral Equation Methods in Computational
Mechanics**

Place: **Udine, Italy**
Date: **2008**, no exact dates available yet
Coordinator: **Prof. M. (Marc) Bonnet**

2009 **IUTAM Summer School on Mechanics in
Microfluidics**

Place: **Beijing, China**
Date: **2009**, no exact dates available yet
Coordinator: **Prof. C.-M. (Chih-Ming) Ho**

Proposals for IUTAM Symposia and Summer Schools for 2010 and 2011

Recently, the call for proposals for IUTAM Symposia and IUTAM Summer Schools for the years 2010 and 2011 has been sent out. Information can be obtained from the IUTAM secretariat. The deadline for submitting proposals is 1 March 2008. Please, consult the IUTAM website for the Proposal Form at <http://www.iutam.net/iutam/Events/index.php/2> .

Co-sponsored Event 2008

First Latin American and Caribbean Congress of Theoretical and Applied Mechanics

Place: **Trinidad and Tobago**
Date: **February 6-7, 2008**
Chairman: **Prof. Luis Rojas**
Contact: **Dr. Donna Comossiong**, Trinidad and Tobago
Email: dcomissiong@fsa.uwi.tt

**XXII International Congress of
Theoretical and Applied Mechanics
24 – 30 August 2008, Adelaide, Australia**

(*Home Page, <http://dis.maths.adelaide.edu.au/~ictam2008/>*)

The International Congresses on Theoretical and Applied Mechanics (**ICTAM**), organized every four years by IUTAM, bring together scientists from all over the world for the purpose of exchanging information about recent developments in the field.

Participation is unrestricted.

Below, the current state of affairs is given with respect to the opening and closing lectures, the mini symposia and the pre-nominated sessions.

Opening and Closing Lecturers

Opening Lecturer: Professor J.W. Hutchinson (USA)

Closing Lecturer: Professor J. Imberger (Australia)

Mini Symposia

MS 01. Cohesive zone models of fracture and failure

Co-chairs:

Professor A. Carpintieri (Italy)

Professor T. Siegmund (USA)

MS 02. Multi-component modeling on different scales

Co-chairs:

Professor H. Petryk (Poland)

Professor F. Rose (Australia)

MS 03. Dynamics and control of walking

Co-chairs:

Professor F. Pfeiffer

Professor H. Yabuno (Japan)

MS 04. Classical and quantum vortex rings

Co-chairs:

Professor H. Aref (USA)

Professor C. Barenghi (UK)

MS 05 Fluid dynamics of animal swimming and flying

Co-chairs:

Professor J. Blake (UK)

Dr. J. Wang (USA)

MS 06 Mechanics of colloidal Systems

Co-chairs:

Dr. D. Langevin (France)

Professor P. Pusey (UK)

Pre-Nominated Sessions**Fluid Mechanics**

FM1	Boundary Layers
FM2	Combustion and flames
FM3	Complex and smart fluids
FM4	Compressible flow
FM5	Computational fluid dynamics
FM6	Convection
FM7	Drops, bubbles and multiphase flows
FM8	Experimental methods in fluid mechanics

Solid Mechanics

SM1	Computational solid mechanics
SM2	Contact and friction mechanics
SM3	Control of structures
SM4	Damage mechanics and fatigue
SM5	Elasticity
SM6	Experimental methods in solid mechanics
SM7	Fracture and crack mechanics
SM8	Geophysics and geomechanics

FM9	Flow Control	SM9	Impact and wave propagation
FM10	Flow instability and transition	SM10	Material instabilities
FM11	Flow in thin films	SM11	Mechanics of composites
FM12	Geophysical and environmental fluid dynamics	SM12	Mechanics of phase transformations (jointly with IACM)
FM13	Low-Reynolds-number flow	SM13	Mechatronics
FM14	Magneto hydrodynamics	SM14	Multibody and vehicle dynamic
FM15	Microfluidics	SM15	Nanostructures and MEMS
FM16	Solidification and crystal growth	SM16	Plasticity and viscoplasticity
FM17	Stirring and mixing	SM17	Stability of structures
FM18	Turbulence	SM18	Structural optimization
FM19	Waves	SM19	Structural vibrations
		SM20	Viscoelasticity and creep

Topics involving both fluid mechanics and solid mechanics

FSM1	Acoustics
FSM2	Biomechanics
FSM3	Chaos and pattern formation in fluid and solid mechanics
FSM4	Fluid-structure interaction
FSM5	Granular materials and flows
FSM6	Mechanics in microgravity
FSM7	Mechanics of material processing
FSM8	Porous media
FSM9	Education in mechanics

Notice on IUTAM Symposia

The IUTAM Symposia are reserved to invited participants. Those wishing to participate in an IUTAM Symposium are therefore advised to please contact the Chairman of the Scientific Committee in due time in advance of the meeting.

As of January 1996 Springer Science and Business Media (named Kluwer Academic Publishers until 2004) is the official designated publisher of the refereed Proceedings of the IUTAM Symposia (in rare cases the Proceedings are published as special issues of appropriate journals).

A listing of all the published volumes may be found on the IUTAM website (see <http://www.iutam.net/iutam/Publications/index.php/3>).

Prior to the publication by Springer, a short report of an IUTAM symposium may be found on the IUTAM website, as published in the IUTAM Annual Reports.

IUTAM is a member of **ICSU**

Notice on availability of IUTAM Newsletter

The IUTAM Newsletter is available (free of charge) to whom it concern upon request from the IUTAM Secretary-General.

IUTAM Home Page:

<http://www.iutam.net>

or: <http://www.iutam.org> or: <http://www.iutam.info>