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International Union of Theoretical and Applied Mechanics

N-2005-2

November 2005

President's Address

Dear Colleagues,

In August of 2005, the Bureau and the Executive Committee of the Congress Committee met in Adelaide, Australia, the site of the 2008 International Congress of Theoretical and Applied Mechanics. These groups were able to tour the venue for the Congress, a modern convention hall in downtown Adelaide, and to engage in extensive discussion with Congress President Ernie Tuck and Secretary-General Jim Denier. The setting is very attractive with the city situated on the coast, with many hotels and restaurants within walking distance of the Congress site. The late winter weather was quite mild. The recent Congresses have attracted broad international representation and the participation of many younger scientists, and have provided stimulating exposure to emerging areas in mechanics. It is our hope and intention that ICTAM 2008 do the same, and we encourage all to support this effort.

IUTAM was capably represented at the ICSU General Assembly meeting in Shanghai in October by Vice-President Keith Moffatt and Yilong Bai. A detailed report on this meeting will be presented at the forthcoming IUTAM General Assembly meeting in August, including several matters on which our Union may wish to act.

We look forward to hosting the IUTAM General Assembly meeting in Providence in August of 2006. Further information for delegates planning to attend the General Assembly meeting is presented elsewhere in this Newsletter.

The success that IUTAM has enjoyed in recent years has derived from its efforts to be broadly inclusive and forward-looking, as well as reflecting a certain standard, in carrying out its mission of fostering our discipline. We welcome the support and participation of all interested organizations and persons.

Ben Freund
President of IUTAM

Short Report on IUTAM Bureau Meeting, 20-21 August 2005

In 2005 the IUTAM Bureau meeting was held in two sessions on 20 and 21 August in the Engineering Mathematics building of the University of Adelaide, Australia.

Among the items discussed at the meeting were the following:

Matters concerning Adhering Organizations

The Bureau agreed to constitute a subcommittee with the task to prepare a proposal for associate membership to be put to the General Assembly next year.

Matters concerning Affiliated Organizations

The state of affairs with respect to ICA, AFMC and CACOFD was discussed.

Matters concerning IUTAM Working Parties

The state of affairs with respect to the Working Parties and their membership was discussed, thereby taking account of the decisions by the General Assembly in Warsaw in 2004.

Matters concerning ICSU

The state of affairs with respect to the African Institute of Mathematical Sciences (AIMS) was discussed.

Attention was paid to the opening of the ICSU Regional Office for Africa in September 2005.

The application of four organizations for admission to ICSU was discussed. The ICSU General Assembly of 16-22 October 2005 in Beijing, China, was prepared.

It was agreed that an ICSU Grants proposal for 2007 should be prepared, to be put to the General Assembly next year.

Reports by the Treasurer and the Secretary-General

The financial shape of the Union was discussed, as well as the state of affairs with respect to the IUTAM Symposia.

Dick van Campen
Secretary-General of IUTAM

Short Report on IUTAM XCCC Meeting, August 2005

The Executive Committee of the Congress Committee met on 21 - 22 August 2005 in Adelaide, Australia, the location for the 22nd ICTAM on 24 - 30 August 2008.

After a brief report on the Warsaw Congress, the main business of the meeting was planning for the Adelaide Congress, which fell into two parts: practical matters such as accommodation facilities for the Congress, organisation of the Congress, paper submission procedures, and, especially, the budget, and scientific matters, in particular selection of Mini-Symposium and Pre-nominated Session topics.

The practical matters are the responsibility of the local organising committee, represented at the meeting by the President of the Congress, Professor Ernie Tuck, and the Secretary-General, Dr Jim Denier. They went through their plans in detail and were subjected to cross-questioning from the Committee, who were very satisfied with the current state of planning. On the morning of Monday 22 August we had a tour of the Adelaide Convention Centre, where the Congress is to be held, and were highly impressed by the available facilities.

It was agreed to retain approximately the same format for the Congress as that which proved so successful in Chicago and Warsaw. The only significant change is the proposal to reduce the number of sectional lectures from 18, presented in three slots of six competing lectures, to 16, presented in four slots of four competing lectures. The total amount of time taken up in the programme by sectional lectures will not be increased, because it is also proposed to reduce their length to 40 minutes.

The XCCC has selected six topics for Mini-Symposia, which are as follows:

- MS1 Cohesive zone models of fracture and failure
- MS2 Multi-component designer materials - metals, ceramics and polymers
- MS3 Dynamics and control of walking
- MS4 Mechanics of colloidal systems
- MS5 Classical and quantum vortex rings
- MS6 Fluid dynamics of animal swimming and flying

When all the proposed mini symposium chairs have agreed to serve, their names will be listed on the IUTAM website.

The XCCC also agreed to reduce the number of pre-nominated sessions from 60 to 48. The motive for this was to eliminate possible competition between related topics and to reduce the number of sessions with very few papers or participants. The list of PNS will be published after the full Congress Committee meeting in August, 2006.

At the end of the meeting the members of the XCCC expressed themselves as fully confident that the 22nd ICTAM will be a great success, and thanked their local hosts most warmly both for the thoroughness of their planning and for the generosity of their hospitality.

Tim Pedley
Secretary, IUTAM Congress Committee

IUTAM Symposia 2006**GA.02-09 IUTAM Symposium on Multiscale Problems in
Multibody System Contacts**

Place: **Stuttgart, Germany**
Date: **February 20-23, 2006**
Chairman: **Prof. P. Eberhard**
University of Stuttgart, Institute B of Mechanics,
Stuttgart, Germany
Email: eberhard@mechb.uni-stuttgart.de

IUTAM Representative on Scientific Committee: Prof. W. Schiehlen

**GA 04-01 IUTAM Symposium on Interactions for Dispersed
Systems in Newtonian and Viscoelastic Fluids**

Place: **DF 04510 Mexico, Mexico**
Date: **March 26-31, 2006**
Chairman: **Prof. G.M. Homsy**
University of California at Santa Barbara, Department of
Mechanical and Environmental Engineering, Santa
Barbara, CA 93106-5070, USA
Email: bud@engineering.ucsb.edu
Co-Chairman: **Dr. J.R. Zenit**

IUTAM Representative on Scientific Committee: Prof. T. Kambe

GA 04-13 IUTAM Symposium on Plasticity at the Micron Scale

Place: **Lyngby, Denmark**
Date: **May 21-25, 2006**
Chairman: **Prof. V. Tvergaard**
Technical University of Denmark, Dept. Mechanical
Engineering, Solid Mechanics, Nils Koppels Alle,
Building 404, DK-2800 Lyngby, Denmark
Email: viggo@mek.dtu.dk

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

GA 04-05 **IUTAM Symposium on Hamiltonian Dynamics,
Vortex Structures, Turbulence**

Place: **Moscow, Russia**
Date: **August 25-30, 2006**
Chairman: **Prof. V.V. Kozlov**
Russian Academy of Sciences, 14 Leninsky Prospect,
119991 Moscow, Russia
Email: Kozlov@ras.ru

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

GA 04-16 **IUTAM Symposium on Discretization Methods for
Evolving Discontinuities**

Place: **Lyon, France**
Date: **September 04 - 07, 2006**
Chairman: **Prof. A. Combescure**
INSA de Lyon, LaMCos, 20, Avenue Albert Einstein,
Bâtiment d'Alembert, F-69621 Villeurbanne, France
Email: alain.combescure@insa-lyon.fr
Co-Chairmen: Prof. T. Belytschko, Prof. R. de Borst

IUTAM Representative on Scientific Committee: Prof. N. Olhoff

GA 04-03 **IUTAM Symposium on Computational Physics and
New Perspectives in Turbulence**

Place: **Nagoya, Japan**
Date: **September 11 - 14, 2006**
Chairman: **Prof. Y. Kaneda**
Nagoya University, Department of Computational
Science, Chikusa-ku, 464-8603 Nagoya, Japan
Email: kaneda@cse.nagoya-u.ac.jp

IUTAM Representative on Scientific Committee: Prof. R. Narasimha

GA 04-15 **IUTAM Symposium on Dynamics and Control of Nonlinear Systems with Uncertainty**

Place: **Nanjing, China**
Date: **September 18 - 22, 2006**
Chairman: **Prof. H. Hu**
 Nanjing University of Aeronautics and Astronautics, 29
 Yudas Street, 210016 Nanjing, China
 Email: hhayae@nuaa.edu.cn
Co-Chairman: Prof. E.J. Kreuzer

IUTAM Representative on Scientific Committee: Prof. W. Schiehlen

GA.02-03 **IUTAM Symposium on Flow Control with Mems**

Place: **London, UK**
Date: **September 19-22, 2006**
Chairman: **Dr. J.F. Morrison**
 Department of Aeronautics, Imperial College, London
 SW7 2BY, UK
 Email: j.morrison@ic.ac.uk

IUTAM Representative on Scientific Committee: Prof. C. Cercignani

GA 04-14 **IUTAM Symposium on Computational Contact Mechanics**

Place: **Hannover, Germany**
Date: **November 5-9, 2006**
Chairman: **Prof. P. Wriggers**
 Universität Hannover, Institut für Baumechanik und
 Numensche Mechanik, Appelstrasse 9A, 30167
 Hannover, Germany
 Email: wriggers@ibnm.uni-hannover.de

IUTAM Representative on Scientific Committee: Prof. J. Salençon

IUTAM Symposia 2007**GA 04-09 IUTAM Symposium on Relation of Shell, Plate,
Beam and 3D Models**

Place: **Tbilisi, Georgia**
Date: **April 23 – 28, 2007**
Chairman: **Prof. G. Jaiani**
Deputy Director, Tbilisi State University, I. Vekua Inst.
Appl. Math., 2 University Str., 0143 Tbilisi, Georgia
Email: jaiani@viam.hepi.edu.ge

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

**GA 04-02 IUTAM Symposium on Recent Advances in
Multiphase Flows: Numerical and Experimental**

Place: **Istanbul, Turkey**
Date: **June 11-14, 2007**
Chairman: **Prof. A. Acrivos**
City University of New York, Dept of Chemical
Engineering, Stanford, CA 94305-1032, USA
Email: acrivos@scisun.sci.cny.cuny.edu
Co-Chairman: Prof. C.F. Delale

IUTAM Representative on Scientific Committee: Prof. L. van Wijngaarden

**GA 04-06 IUTAM Symposium on Unsteady Separated Flows
and their Control**

Place: **Corfu, Greece**
Date: **June 18-22, 2007**
Chairman: **Dr. M. Braza**
Unite Mixte de Recherche, Institut de Mecanique des
Fluides de Toulouse, F-31400 Toulouse, France
Email: braza@imft.fr
Co-Chairman: Prof. K. Hourigan

IUTAM Representative on Scientific Committee: Prof. C. Cercignani

GA 04-12 **IUTAM Symposium on Scaling in Solid Mechanics**Place: **Cardiff, UK**Date: **June 25-29, 2007**Chairman: **Prof. F.M. Borodich**Cardiff University, School of Engineering, Institute of
Theoretical, Applied and Computational Mechanics,
CF24 0YF Cardiff, UK**Email:** BorodichFM@Cardiff.ac.uk

IUTAM Representative on Scientific Committee: Prof. J. Engelbrecht

GA 04-08 **IUTAM Symposium on Fluid-Structure Interaction
in Ocean Engineering**Place: **Hamburg-Harburg, Germany**Date: **July 23-27, 2007**Chairman: **Prof. E.J. Kreuzer**TU Hamburg-Harburg, Arbeitsbereich Mechanik und
Meerestechnik, D-21071 Hamburg, Germany**Email:** Kreuzer@tu-harburg.de

IUTAM Representative on Scientific Committee: Prof. N. Olhoff

GA 04-04 **IUTAM Symposium on Advances in Micro- and
Nanofluidics**Place: **Dresden, Germany**Date: **September 06 - 08, 2007**Chairman: **Prof. N.A. Adams**TU Dresden, Institut für Strömungsmechanik, George-
Bär-Strasse 3c, D-01062 Dresden, Germany**Email:** nikolaus.adams@ism.mw.tu-dresden.de

IUTAM Representative on Scientific Committee: Prof. C. Cercignani

GA 04-10 IUTAM Symposium on Mechanical Properties of Cellular Materials

Place: **Cachan, France**
Date: **September 17-21, 2007**
Chairman: **Prof. H. Zhao**
LMT-Cachan, 61, Avenue du Président Wilson, 94235
Cachan Cedex, France
Email: zhao@lmt.ens-cachan.fr
Co-Chairman: Prof. N.A. Fleck

IUTAM Representative on Scientific Committee: Prof. Z. Zheng

GA 04-11 IUTAM Symposium on Multi-Scale Plasticity of Crystalline Materials

Place: **Eindhoven, Netherlands**
Date: **November 5-9, 2007**
Chairman: **Prof. M.G.D. Geers**
Eindhoven University of Technology, Dept. Mechanical
Engineering, P.O. Box 513, 5600 MB Eindhoven, Neth.
Email: m.g.d.geers@tue.nl
Co-Chairman: Dr. E.P. Busso

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

GA 04-07 IUTAM Symposium on Swelling and Shrinking of Porous Materials: From Colloid Science to Poro-Mechanics

Place: **Petrópolis-RJ, Brazil**
Date: **2007, no exact dates available yet**
Chairman: **Prof. M.A. Murad**
National Laboratory for Scientific Computing, 25651-
075 Quitandinha, Petrópolis-RJ, Brazil
Email: murad@Incc.br

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

IUTAM Summer Schools

2006

IUTAM Summer School on Biomechanical Modelling at the Molecular, Cellular and Tissue Levels

Place: **Udine, Italy**
Event dates: **September 11-15, 2006**
Coordinators: **Prof. Gerhard Holzapfel, Graz, Austria**
Prof. Raymond Ogden, Glasgow, UK
Email: gh@biomech.tu-graz.ac.at

IUTAM General Assembly in 2006

The dates of the 2006 meetings of the General Assembly of IUTAM have been set at 12-13 August 2006 in Providence, Rhode Island, USA, with associated committees also meeting on 11 and 14 August. US State Department security restrictions have been problematical for a few prospective visitors to the US. The US National Academy of Sciences is very concerned about the situation and may be helpful if difficulties arise in securing visas. Anyone with concerns about visa matters might consult the web site www.national-academies.org/visas. More detailed information will be provided in due time.

Proposals for IUTAM Symposia and Summer Schools for 2008 and 2009

Recently, the call for proposals for IUTAM Symposia and IUTAM Summer Schools for the years 2008 and 2009 has been sent out. Information can be obtained from the IUTAM secretariat. The deadline for submitting proposals is 1 March 2006. Please, consult the IUTAM website for the Proposal Form at <http://www.iutam.net/iutam/Events/index.php/2> .

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 from January 1996, Kluwer Academic Publisher (now Springer Science and Business Media) is the preferred 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.

Prior to the publication by Kluwer/Springer, a short report of an IUTAM symposium may be found on the IUTAM website, as published in the IUTAM Annual Reports
(<http://www.iutam.net/iutam/Publications/index.php/3>).

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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.

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