

Call for papers

Congress participants are encouraged to submit a paper. Papers are sought for all topics corresponding to **Pre-Nominated Session or Mini-Symposium** subject matter. If none of these proves suitable, the prospective author is encouraged to indicate a new topic or to provide relevant keywords. The paper must be written in English and should describe material that is novel and preferably unpublished at the time of the Congress. All papers presented at the Congress are by invitation based upon the recommendation of the International Papers Committee. No author shall be invited to present more than one paper. Prospective authors are asked to submit only one paper for consideration. Submission of a paper for consideration requires three steps:

1. Pre-registration and Registration

All participants are requested to register using the *On-line Registration Form*. On completion of pre-registration each participant will be assigned a unique *Registration ID number*. This number will be required in order to submit a paper. To register please follow the *Registration Form* menu on the Congress web site:

ictam2008.adelaide.edu.au

2. Submission of a brief abstract

The **Abstract** is limited to 150 words. It should not contain figures, drawings or extensive references. It may contain equations in LaTeX format. Please submit the **Abstract** using the *Paper Submission* menu on the Congress web site:

ictam2008.adelaide.edu.au

3. Submission of an Extended Summary

The **Extended Summary** will be used for evaluation by the International Papers Committee. It must have the same title and list of authors as the abstract. Any **Extended Summary** that does not match up with the submitted **Abstract** in terms of title and authors will not be considered. The extended summary must be prepared in PDF format and is limited to two A4 or 8.5 x 11 in. pages maximum. It should be prepared as attractively as possible, much like a manuscript for journal submission. The text must be 10 point or larger in size. To submit an **Extended Summary** use the *Paper Submission* menu on the Congress web site:

ictam2008.adelaide.edu.au

Abstracts and Extended Summaries may be submitted after September 1st, 2007. **They must reach the Secretary-General no later than Friday, January 11th, 2008.**

Contributors will be informed of the decision of the International Papers Committee, and on the assignment of their paper to a session, by May 1st, 2008. The author of a paper invited for presentation is expected to register and present the paper at the Congress.

Publications

The **Abstract Book** and the **ICTAM 2008 CD-ROM** containing the **Extended Summaries** of accepted papers will be distributed to all participants registered at the Congress. The **Proceedings** book will appear after the Congress. It will contain the text of the Opening, Closing and Sectional Lectures and the Introductory Lectures of the Mini-Symposia; a list of all contributed papers presented at the Congress (but not the **Abstracts**); a list of participants in ICTAM 2008 and a general report on the Congress. Authors of contributed papers presented at the Congress are encouraged to submit their work to appropriate journals for publication.

Support Grants

ICTAM2008 will have at its disposal limited funds to provide support to participants with accepted papers who are unable to secure adequate funds from their home countries. Prospective participants who wish to apply for financial assistance should request an application form from the Secretary General.

Accommodation

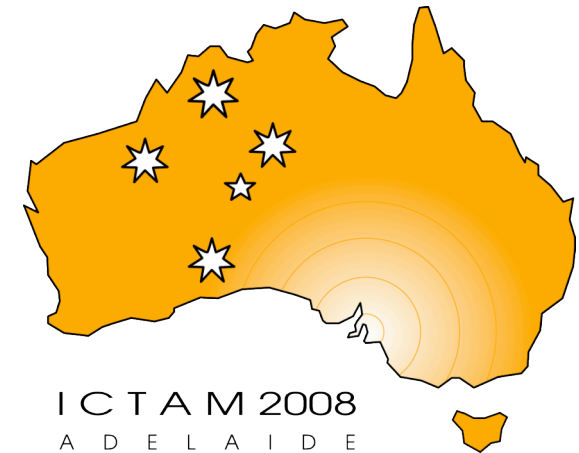
The Congress will be held at the Adelaide Convention Centre, conveniently located in the heart of Adelaide. There is a wide choice of hotels within easy walking distance from the Congress venue, many of which are listed on the Congress web site. Participants should make their own travel and accommodation arrangements using the links on the Congress web site.

Program for Accompanying Persons

Information on things to do in and around Adelaide as well as links to a variety of Australian Tourism providers can be found on the Congress web site.

IUTAM

INTERNATIONAL UNION OF THEORETICAL AND APPLIED MECHANICS



22nd INTERNATIONAL CONGRESS OF THEORETICAL AND APPLIED MECHANICS

24th – 30th August, 2008
Adelaide, Australia

First Announcement
and
Call for Papers

May 2007

Congress web site:
ictam2008.adelaide.edu.au

General Information

The 22nd International Congress of Theoretical and Applied Mechanics (ICTAM) will be held from August 24th to August 30th 2008, in Adelaide, Australia. The Congress comes to Australia at the invitation of

Australian Academy of Science
The University of Adelaide
The Flinders University of South Australia

The Congress venue is the Adelaide Convention Centre located on the banks of the River Torrens.

President of ICTAM 2008 and Chairman of the Local Organising Committee is

Professor Ernie Tuck

Secretary-General of ICTAM 2008 is

Associate Professor Jim Denier

Correspondence relating to the Congress should be addressed to:

**ICTAM 2008 Secretary-General
Associate Professor Jim Denier**

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All information regarding ICTAM 2008, including details of how to submit papers, registration forms, accommodation and transportation will be available on the Congress Web site

ictam2008.adelaide.edu.au

Links to various points of interest, including tourist information (for accompanying persons, pre- and post-congress tours) will also be made available on the Congress web site.

Scientific Program

The scientific program will start and end with the opening and closing lectures. The program will consist of sectional lectures, mini-symposia and contributed papers presented in lecture and seminar presentation sessions. Invitations to present contributed papers will be made on the recommendation of the International Papers Committee, based upon their review of submitted abstracts and extended summaries.

Opening Lecture

J. Hutchinson (USA)

Closing Lecture

J. Imberger (Australia)

Sectional Lectures

D. Bigoni (Italy)	D. Lohse (Netherlands)
H. Durrant-Whyte (Australia)	O. Pouliquen (France)
D. Elad (Israel)	D. Quéré (France)
N. Fleck (UK)	J. Rudnicki (USA)
N. Gupta (India)	J. Sørensen (Denmark)
S. Hilgenfeldt (USA)	N. Sottos (USA)
F. Hussain (USA)	P. Wriggers (Germany)
O. Jensen (UK)	W.R. Hu (PRC)
	T. Yamagata (Japan)

Mini-Symposia and Chairs

Cohesive zone models of fracture and failure

A. Carpinteri (Italy), T. Siegmund (USA)

Multi-component materials, modelling on different scales

H. Petryk (Poland), F. Rose (Australia)

Dynamics and control of walking

F. Pfeiffer (Germany), H. Yabuno (Japan)

Classical and quantum vortex rings

H. Aref (USA), C. Barenghi (UK)

Fluid dynamics of animal swimming and flying

J. Blake (UK), J. Wang (USA)

Mechanics of colloidal systems

D. Langevin (France), P. Pusey (UK)

Contributed Papers

These are intended to cover all aspects of mechanics. A list of topics selected for pre-nominated sessions is given below. Papers on other topics are equally welcome. Contributed papers will be presented either as lectures or as seminar presentations.

Pre-nominated Sessions

Fluid Mechanics

Boundary Layers • Combustion and flames • Complex and smart fluids • Compressible flow • Computational fluid dynamics • Convection • Drops, bubbles and multiphase flows • Experimental methods in fluid mechanics • Flow Control • Flow instability and transition • Flow in thin films • Geophysical and environmental fluid dynamics • Low-Reynolds-number flow • Magnetohydrodynamics • Microfluidics • Microgravity Fluid Mechanics • Solidification and crystal growth • Stirring and mixing • Turbulence • Waves

Solid Mechanics

Computational solid mechanics • Contact and friction mechanics • Control of structures • Damage mechanics and fatigue • Elasticity • Experimental methods in solid mechanics • Fracture and crack mechanics • Geophysics and geomechanics • Impact and wave propagation • Material instabilities • Mechanics of composites • Mechanics of phase transformations (jointly with IACM) • Mechatronics • Multibody and vehicle dynamics • Nanostructures and MEMS • Plasticity and viscoplasticity • Stability of structures • Structural optimization • Structural vibrations • Viscoelasticity and creep

Topics involving both fluid mechanics and solid mechanics

Acoustics • Biomechanics • Chaos and pattern formation in fluid and solid mechanics • Fluid-structure interaction • Granular materials and flows • Mechanics of material processing • Porous media • Education in mechanics

IUTAM Bureau Prizes

Prizes for the best presentations by young scientists (no older than 35) in Fluid and Solid Mechanics will be presented during the closing ceremony.