



AUSTRALASIAN
FLUID
MECHANICS
SOCIETY

NEWSLETTER – No. 6

November 2013

Welcome to the sixth newsletter of the Australasian Fluid Mechanics Society (AFMS). Since its inception, the Society has been generating funds that are now sufficient that significant projects can be undertaken in the support and promotion of Fluid Mechanics in Australasia. The enlarged 2013 executive committee – with a broader demographic representation of our community – has already met three times this year with range of developments in the pipeline, some of which are described in this issue.

NEWS

Vale Sam Luxton

The AFMS pays tribute to one of Australia's great Fluid Mechanics, Professor R.E. 'Sam' Luxton, who passed away earlier this year. Sam Luxton was a professor in the Department of Mechanical Engineering at the University of Melbourne from 1974 to 1998. He worked across a broad range of Fluid Mechanics, including important contributions to the fields of Combustion and Thermodynamics. Many of his developments were patented and are now contributing to the quality of life all over the world. He was a pioneer and advocate of Clean Energy and also had a keen sense, and energy for the pursuit, of Social Justice. A full biography which evidences the warmth of the person, as much as his accomplishments, can be found at:

http://www.alumni.adelaide.edu.au/s/923/images/editor_documents/the_roar/2013/luxton_obituary_mech_eng_final5.pdf

It is proposed that Sam Luxton be remembered by the AFMS through a named student prize, the details of which the committee is working on at present.

AFMS website

Anyone who has visited the Society's website (at www.afms.org.au) will have noticed changes to its layout. Over the next few months, the site is being professionally developed to enhance its 'look' and, more importantly, to serve as a resource area/repository for Fluid Mechanics in the region. It is anticipated that the new site will be complete early in 2014.

It is already the publication site for AFMC proceedings and recently has had added a 'jobs ad' section. Please send postdoctoral research positions or other advertisements (e.g. PhD scholarships, or internship or vacation projects available) to the AFMS. The level of activity of Fluid Mechanics in Australia and New Zealand is high, and this should be reflected on the site. There are many recent PhD graduates around the world looking for positions. The more advertisements we have, the more hits we get, and the higher we get indexed on Google. This will give the AFMS and its members greater visibility worldwide with its attendant benefits. At present, advertising is free for AFMS members, so get in early!

ANNOUNCEMENTS

19AFMC

The 19th Australasian Fluid Mechanics Conference (19AFMC) is to be held in

Melbourne on 8th - 11th December 2014

It will be hosted by RMIT University with the local Organising Committee, comprising representatives from across Melbourne's universities, chaired by Firoz Alam. This is a very important event for our community so please pencil it into your diaries now!

The Organising committee has already secured a high-quality and diverse range of invited keynote speakers that includes the following:

- Prof Alexander Smits, G.K. Batchelor Lecture, Princeton University, USA
- Dr Rabindra Mehta: Sports Aerodynamics, NASA Ames Centre, USA
- Prof Ronald Adrian: Turbulence, Arizona State University, USA
- Prof Heinze Pitsch: Combustion, Aachen, Germany (unconfirmed)
- Prof Joseph Katz: Cavitation, John Hopkins University, USA
- Dr Guy Metcalfe: Chaotic flows, CSIRO, Australia
- Prof Greg Ivey: Environmental Fluid Mechanics, University of Western Australia

The provisional list of topics in which papers will be solicited is as follows

Aerodynamics	Hydrodynamics	Industrial flows	Combustion
Aero-acoustics	Wind engineering	Oceanography	Reacting flows
Atmospheric research	Computational fluid dynamics	Renewable energy	Experimental techniques
Multiphase flows	Non-Newtonian flow	Jets and wakes	Boundary layers
Gas dynamics	Hydraulics	Pipe flows	Groundwater flows
Micro/biofluids	Biomedical fluid mechanics	Fluid-structure interaction	Heat transfer
Sports aerodynamics	Environmental fluids	Fluid-mechanics education	

While this covers the range of topics established over many previous successful conferences, the AFMS and the AFMC Organising Committee strongly encourages more Chemical and Civil Engineers working in Fluid Mechanics to participate. As a member of the AFMS, could you please promote the conference to your colleagues in these discipline areas by asking them to consider submitting a paper for the 19AFMC. In this way the conference will truly cover the very broad range of Fluid Mechanics research being conducted in Australasia - and so that cross-disciplinary interactions and ideas can flow!

The conference website has been set up and can be found at

www.rmit.edu.au/19afmc

which can also be accessed from the AFMS site.

The first announcement has recently been sent out. Again, please forward the announcement to your networks both domestic and international.

Salient details are that abstracts of up to 500 words (Times New Roman 12 point font-size preferably as a Word document) are solicited before 14th April 2014 and sent directly to the conference secretariat whose address is

19afmc@rmit.edu.au

We also anticipate that with the completion of the Society's website in early 2014, a paper-management system will be in place to which you will be able to upload abstracts directly. Full 6-page papers (submission deadline: 23rd June 2014) for the conference will be peer reviewed by international experts. Accepted papers will be published by Elsevier under the Procedia Engineering series, which is referenced on Scopus and other relevant referencing outlets

Fluids in New Zealand (FiNZ) 2014 Workshop

As part of its mission, the AFMS supports workshops and symposia that advance and disseminate Fluid Mechanics research in the Australasia region. Accordingly, the AFMS is pleased to support the Fluids in New Zealand (FiNZ) 2014 Workshop, 29th -31st January 2014, being held at the University of Auckland.

The workshop aims to bring together fluid mechanicians from all backgrounds and specialisations to discuss their recent research in a friendly and collaborative setting. More details – including the registration process - can be found at the workshop site

<http://finz2014.auckland.ac.nz>

Nominations for Fellows of the Society

The AFMS continues to welcome fellowship nominations by way of a written case that covers biographical elements of the nominee with emphasis on outstanding achievements plus supporting letters from two experts able to comment on the nominee's contributions to research and/or education in Fluid Mechanics. While the fellowships are announced and presented at the biennial AFMC, nominations can be made at any time to the AFMS.

Next AFMS committee meeting

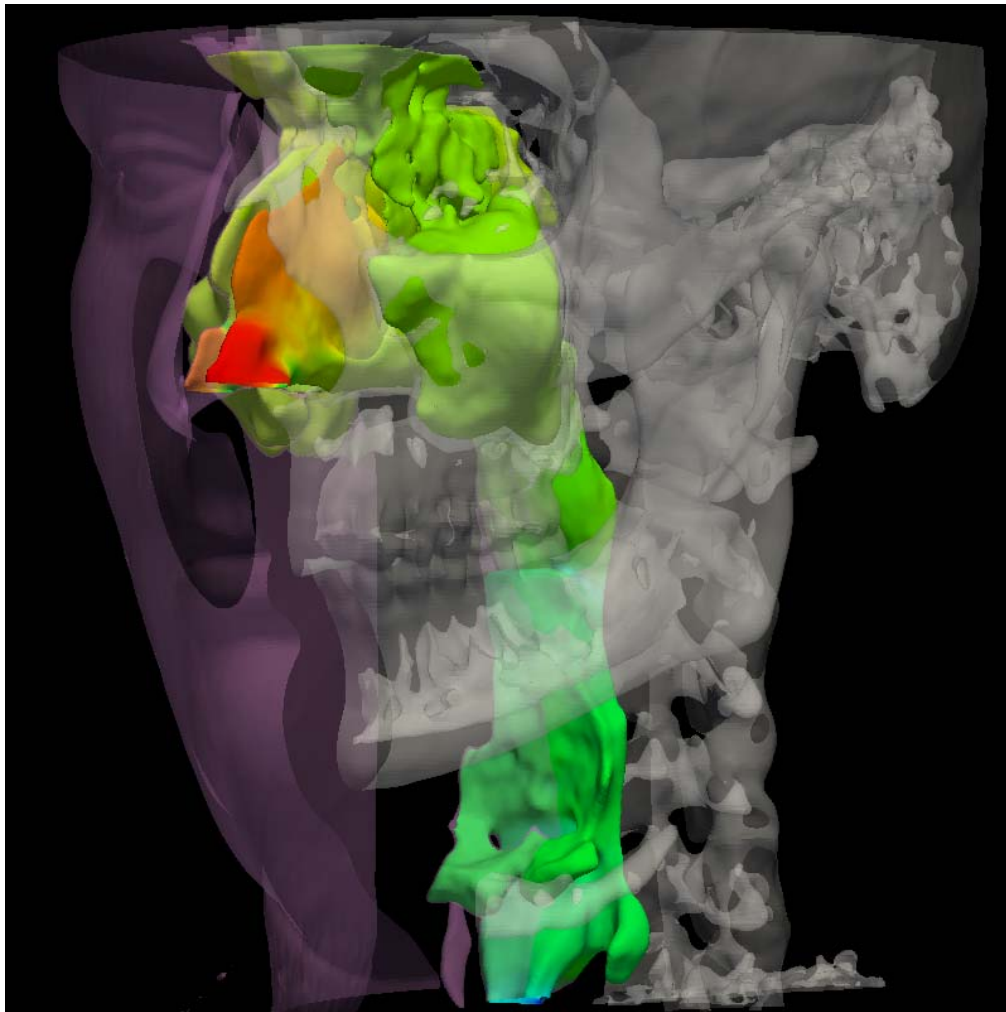
The next committee meeting will be held in the first week on Thursday 5th December 2013. If there is any matter or suggestion that would like to have raised, please communicate it to the secretary of the Society or through any of your committee members.

ENDPIECE

If you would like to contribute an item for inclusion in the next newsletter, then please contact the secretary of the AFMS at a.lucey@curtin.edu.au

The Society's website can be found at: <http://www.afms.org.au>

This newsletter's fluid-mechanics image is provided by Dr Julien Cisonni of the Fluid Dynamics Research Group at Curtin University. **More submissions are requested for future editions of the newsletter and for the AFMS gallery.**



Pressure distribution (colour spectrum from: red = 0Pa to blue = -44.3Pa) on the surface of the upper airway, from the nares (nose) to the tracheal-oesophageal branch, during inspiration for a flow-rate of 21L/min. The geometry is reconstructed from CT data and discretised using an unstructured mesh of 6 million cells.