



## **NEWSLETTER – No. 4**

**April 2012**

Welcome to the fourth newsletter of the Australasian Fluid Mechanics Society (AFMS). Herein we draw attention, in particular, to two important events coming up in 2012: (i) the 18<sup>th</sup> Australasian Fluid Mechanics Conference (AFMC) in Launceston, Tasmania, and (ii) the election of office bearers of our Society. Ideally, both of these should involve you – the AFMC by participation, and the second through the process of elections and, potentially, your candidature for a position on the executive committee!

The AFMS continues to develop and is inexorably gaining recognition as the voice of your discipline through its support of the activities of Fluid Mechanics in the region and its uniting influence; thus, for example, the 18<sup>th</sup> AFMC will be the first time that this conference has been run through the auspices of the AFMS. However, the society's membership base can and needs to grow. Thus, please do your bit to promote the Society by encouraging your colleagues and students to become members and/or get involved, for example by circulating this newsletter to non-members.

## **NEWS**

### **18 AFMC**

The 18<sup>th</sup> Australasian Fluid Mechanics Conference will be held in the period 3<sup>rd</sup>-7<sup>th</sup> December 2012 in Launceston, Tasmania. The conference is jointly hosted by the University of Tasmania and the Australian Maritime College (AMC) and strongly supported by local and state governments. The conference chair is A/Professor Paul Brandner of the AMC. The 18 AFMC is the series to be run under the auspices of the AFMS which will work closely with Paul. We also hope that AFMS members will assist Paul and the AFMS through promotion, reviewing abstracts and papers and by attending the conference. The conference website is at:

<http://www.18afmc.com.au>

The call for abstracts has already been sent out and the deadline for the submission of abstracts is the 25<sup>th</sup> May 2012 with the papers following on the 17<sup>th</sup> August for review. The AFMS strongly encourages you to submit a paper for this conference and attend as it

provides a great opportunity for our community to come together... and in a wonderful location!

All of the published papers will be available at the AFMS electronic archive at

<http://www.mech.unimelb.edu.au/people/staffresearch/AFMS%20site/AFMC.htm>

that now includes papers from previous conferences in the AFMC series. The refereed full conference papers of the AFMC series (commencing 16<sup>th</sup> AFMC) have recently become Scopus listed and the conference was ERA-ranked as 'A' in the 2010 ERA categorisation of conferences. These indicators attest to the quality of the published conference papers. The Scopus listing now makes papers far more accessible and 'cite-able' – another reason to attend and publish your recent developments through the conference!

### **Young AFMS members at the 18 AFMS**

This year the AFMS will be offering student paper-presentation prizes at the 18 AFMC (see above). At this stage we plan to have the judging done by the session organizers since they will generally know their disciplines better than volunteer judges from the membership. Judging duties are not expected to be onerous; however, session organizers can nominate another volunteer judge from the appropriate discipline if required. In addition to running these prizes, there will be a low-key early-career networking BBQ on the Monday night during the conference. Any suggestions regarding either of these activities at the conference can be sent to [jesse.robertson@csiro.au](mailto:jesse.robertson@csiro.au).

### **ARC Representation**

An early goal of the AFMS was to improve the representation of the discipline of Fluid Mechanics in the ARC College (of Experts). This led to the appointment of Ivan Marusic, Ross Griffiths and Greg Ivey to the ARC College. Ivan and Ross have completed their terms of office while Greg continues to serve on the Physical, Chemical & Earth Sciences (PCE) panel. Continuation of this necessary representation has been assured by the recent appointment (2012-2014) of AFMS executive-committee members Steve Armfield and Tony Lucey to the Engineering, Mathematics and Informatics (EMI) panel.

## **ANNOUNCEMENTS**

### **Call for bids to host 19 AFMC in 2014**

A call for bids to host the 19<sup>th</sup> Australasian Fluid Mechanics Conference (AFMC) is announced by way of this newsletter. A form is available through which to make a bid to host; this can be obtained from either the president or secretary. Particularly welcome are city-based bids that bring together more than one institution to host the event. Bids must be lodged before the closing date of 1<sup>st</sup> November 2012 and the winning bid will be announced in the closing ceremony of the 18<sup>th</sup> AFMC in December 2012.

Like the upcoming 18<sup>th</sup> AFMC, the 19<sup>th</sup> AFMC will also be held under the auspices of the AFMS through coordinated local and central organising committees; this serves to remove financial risk (and gain) from host organisations. It also allows the combined expertise of the AFMS to assist in aspects of the conference organisation such as the management and reviewing of papers.

## **Election of AFMS committee members**

Members of the executive committee of the AFMS serve for two years. The current composition of the committee is:

Ivan Marusic	President
Julio Soria	Vice-President
Ross Griffiths	Treasurer
Tony Lucey	Secretary
Steve Armfield	Executive Committee Member
Jim Denier	Executive Committee Member
Greg Ivey	Executive Committee Member
Richard Morgan	Executive Committee Member
Roger Nokes	Executive Committee Member
Tony Roberts	Executive Committee Member
Michael Borgas	Co-opted Executive Committee Member
Gordon Mallison	Co-opted Executive Committee Member
Nigel Smith	Co-opted Executive Committee Member

All four of the named (President, Vice-President, Treasurer, Secretary) roles along with the six (non-coopted) committee members' positions are now open for election or re-election. Accordingly, AFMS members are asked to nominate or self-nominate for these 10 positions. If the number of nominations exceeds the number of positions available, or there is more than one nomination for a named role, then an election will be held among the AFMS membership. The closing date for nominations (to the AFMS Secretary at [a.lucey@curtin.edu.au](mailto:a.lucey@curtin.edu.au)) is 10<sup>th</sup> October 2012.

### **Design Competition for a new "Logo of the AFMS"**

The logo that heads this newsletter was always intended to be an interim design during the establishment of the AFMS. The AFMS now seeks to introduce a permanent logo that reflects Fluid Mechanics together with the purpose and ethos of the AFMS.

To this end, the AFMS solicits entries from members and non-members of the AFMS for the "Logo of the AFMS". The winning entry will be selected by the executive committee of the AFMS and announced at the forthcoming 18 AFMC to be held in Launceston, 3-7 December. The designer of the entry selected to become the new logo of the AFMS will receive a two-year membership subscription of the AFMS, a \$100 book voucher and a framed certificate. Clearly, the winner will also take pride in his/her creativity as the design will achieve wide

dissemination as the banner of the AFMS website and the AFMS newsletter and through all other AFMS output/publications.

Entries for the competition should be emailed to Julio Soria ([julio.soria@monash.edu](mailto:julio.soria@monash.edu)) by 26<sup>th</sup> October 2012.

### **Nomination of candidates for fellowships of the AFMS**

In 2010, ten eminent fluid mechanics were elected to fellowships of the AFMS that were awarded at a special ceremony during the 17 AFMC in Auckland as reported in the 3<sup>rd</sup> AFMS newsletter.

The AFMS now calls for a second round of fellowships to be accorded to worthy candidates who will be inducted during the 18 AFMC in Launceston this year.

Accordingly, AFMS members are asked to nominate fellowship candidates by way of a written case that covers biographical elements of the nominee with an 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. The timeline for the election process is:

- First call for nominations through this newsletter – April 2012
- Email reminder of 'call for nominations' to members – 30<sup>th</sup> June 2012
- Nominations close – 31<sup>st</sup> July 2012
- New AFMS fellows announced – 31<sup>st</sup> August 2012
- AFMS fellows inducted at 18 AFMC – (3<sup>rd</sup>–7<sup>th</sup>) December 2012

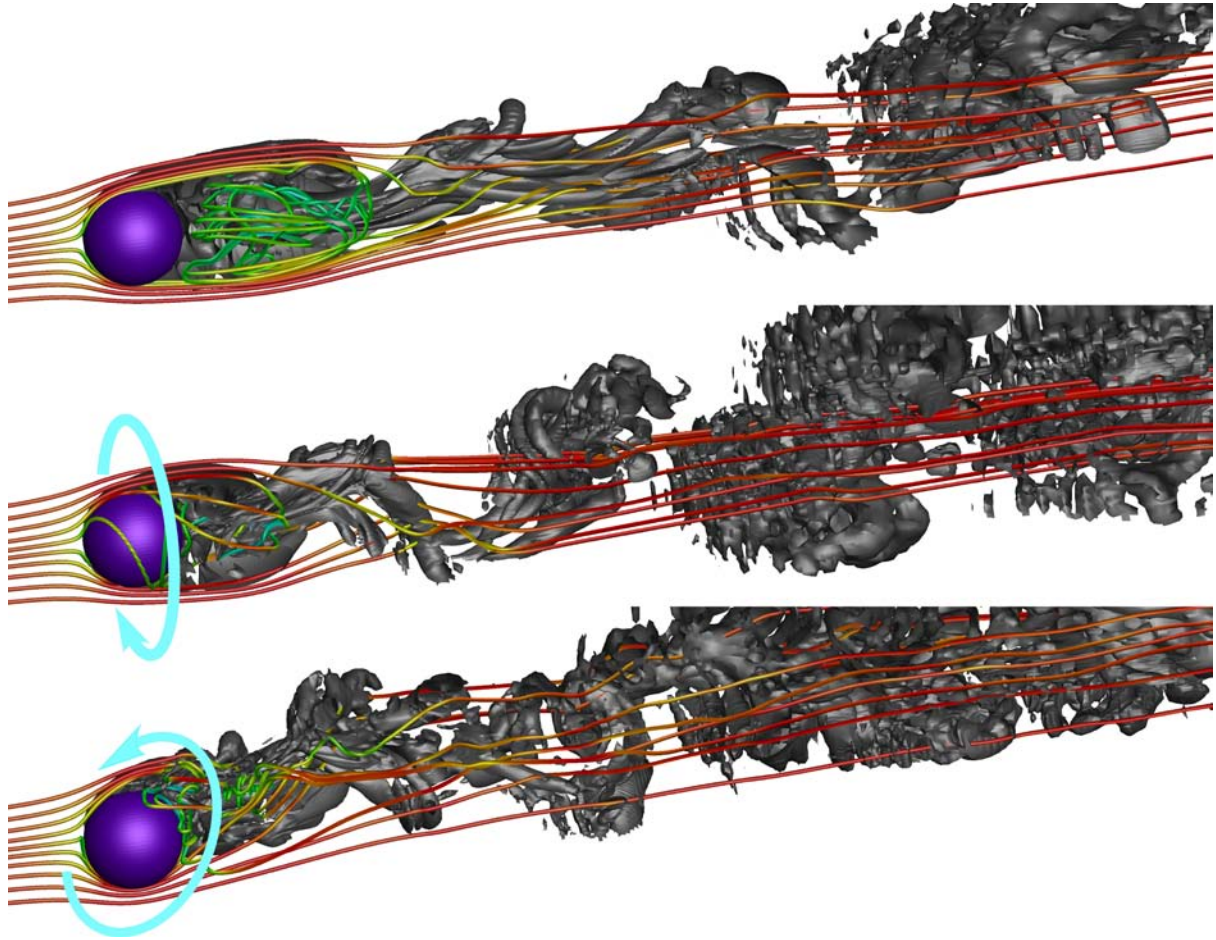
Applications will be judged by an AFMS panel headed by Ross Griffiths (who is an inaugural AFMS fellow). The panel will give its recommendations to the AFMS Executive Committee which will make the final decision. Nominations and the documentation for the case should be completed and forwarded to Ross ([Ross.Griffiths@anu.edu.au](mailto:Ross.Griffiths@anu.edu.au)).

### **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](mailto:a.lucey@curtin.edu.au)

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

This newsletter's fluid-mechanics image is provided by Professor Andrew Ooi of Melbourne University with a special acknowledgement to his recently graduated PhD student Dr. Eric Poon. **More submissions are requested for future editions of the newsletter and for the AFMS gallery.**



The figure shows flow over a rotating sphere each panel carried out at  $Re = 1,000$  for (top to bottom) stationary sphere, streamwise rotation at  $\omega' = 1.2$  and transverse rotation at  $\omega' = 1.2$ , where non-dimensional rotation speed is defined by  $\omega' = \omega D / 2U_\infty$ . The lambda2 iso-surfaces (ref. Jeong, J. & Hussain, F. (1995). On the identification of a vortex. *J. Fluid. Mech.* 285: 69–94) show the flow structures. The streamlines are also shown. The simulations were carried out using an unstructured, finite-volume code with the fractional-step method that conserves kinetic energy. The Crank-Nicolson scheme was used for the temporal discretisation of both the viscous and convective terms.