



**NOTICE OF THE  
31st ANNUAL GENERAL MEETING  
AND TECHNICAL MEETING**

**‘Higher order’ numerical modelling of thermoacoustic couples**

by

Mr Luke Zoontjens

School of Mechanical Engineering, the University of Adelaide

At levels corresponding to a normal conversation, say 60dB, the shift in temperature associated with sound waves in air are of the order of hundredths of thousandths of a degree Celsius and are therefore relatively unimportant in engineering acoustics. At sound levels 100 to 120 dB higher, the story is quite different.

Thermoacoustics has been demonstrated as an effective technology which can potentially serve a variety of purposes through exploitation of sound pressure levels in excess of 170dB and acoustic velocities at significant fractions of Mach number. However, for certain operating states, the precise heat and mass transfer which occurs deep inside the core of thermoacoustic devices cannot at present be precisely estimated using the relatively simple or one-dimensional computational domains currently available.

In this presentation, a higher-order numerical model is presented which has yielded new information regarding the design and operation of thermoacoustic devices.

Luke Zoontjens is a PhD student in the School of Mechanical Engineering at the University of Adelaide.

**Anyone interested in attending the meeting is encouraged to join us prior to meeting for friendly dinner/drinks (free wine, beer, soft drinks for members) at Café Buongiorno at 6pm on Wednesday 12<sup>th</sup> September. The AGM will commence at 7.30pm in the HH Davis Room, S117, 1st Floor Engineering South Building, University of Adelaide (See attached map.)**

DATE: Wednesday 12<sup>th</sup> September 2007

TIME: 6:00pm Dinner, Café Buongiorno, 187 Rundle Street

7.30pm Annual General Meeting, HH Davis Room, S117, 1st Floor Engineering South Building, University of Adelaide

The Technical Meeting will directly follow the AGM.

Please RSVP to Luke Zoontjens via [luke.zoontjens@mecheng.adelaide.edu](mailto:luke.zoontjens@mecheng.adelaide.edu) or 8303 5460 to help us plan the event.

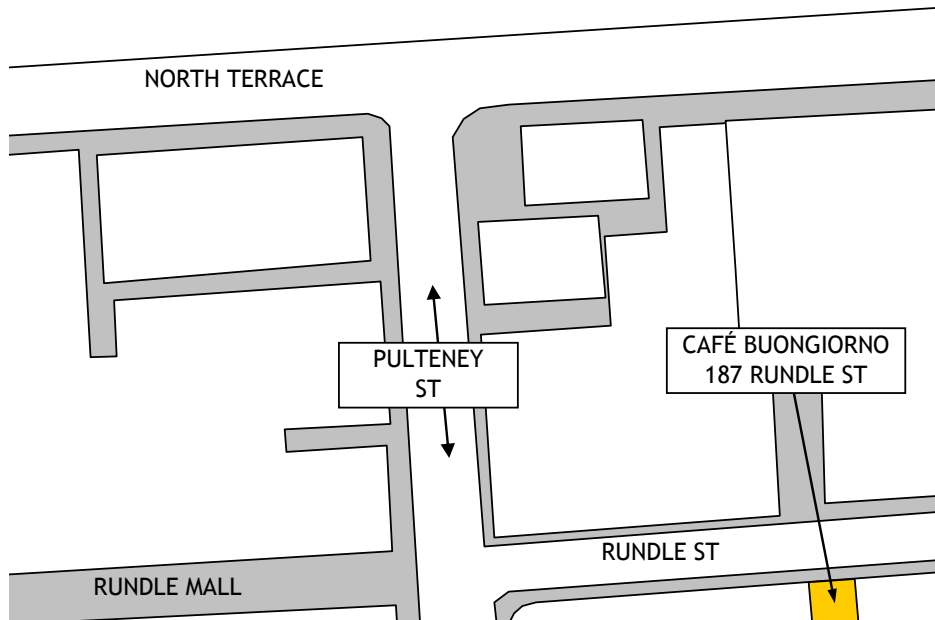
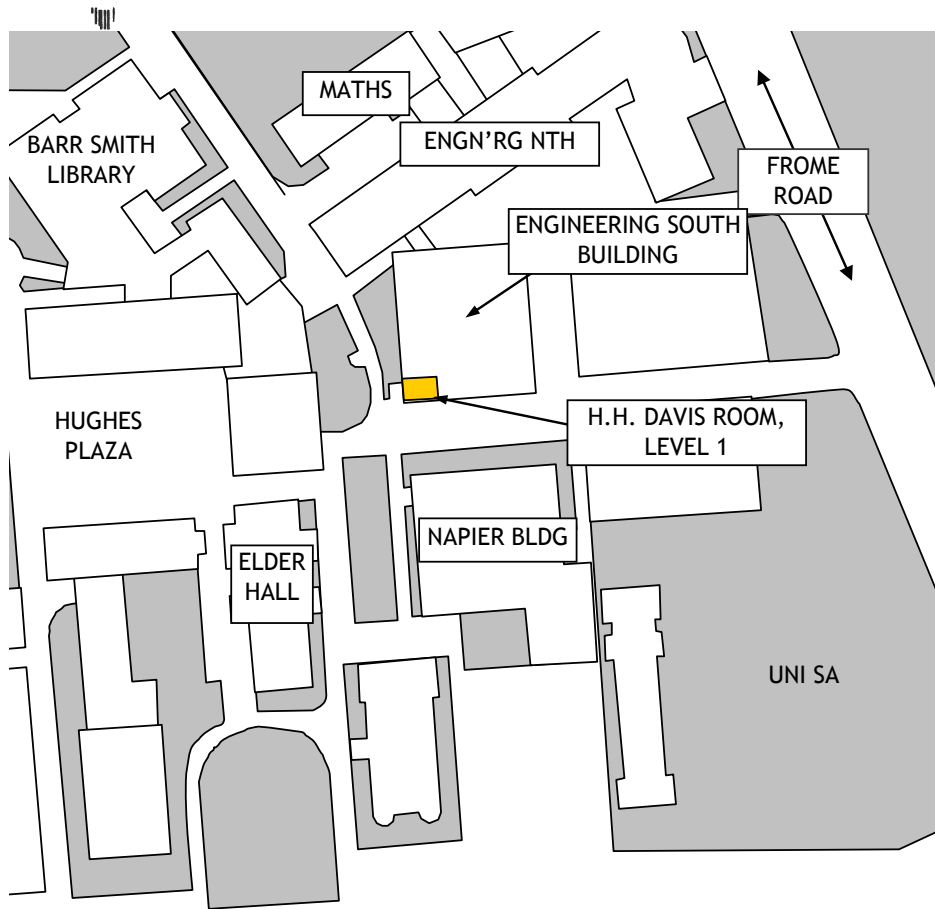


# Australian Acoustical Society

A.C.N. 000 712 658

SOUTH AUSTRALIA DIVISION

ABN: 28 000 712 658





## **31st ANNUAL GENERAL MEETING**

The 31st Annual General Meeting of the SA Division of the Australian Acoustical Society will be held at 7.30 p.m. on Wednesday 12<sup>th</sup> September 2007, in the HH Davis Room, S117, 1st Floor Engineering South Building, University of Adelaide.

### **AGENDA**

1. Apologies
2. Call for Proxies
3. Minutes of 30th AGM\*
4. Business Arising
5. Chair's Report\*
6. Treasurer's Report\*
7. Registrar's Report\*
8. Confirmation of Auditor
9. Election of Committee Members
10. Any other business
11. Closure

*\* Printed copies will be available at the AGM.*



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## PROXY FORM

I, ..... of .....  
being a Member of the SA Division hereby appoint ..... of .....  
or, failing him/her ..... of .....  
as my proxy to vote for me on my behalf at the AGM of the SA Division to be held on 12<sup>th</sup>  
September 2007 commencing at 7.30 pm and at any adjournment thereof.

Signed this ..... day of ..... 2007

Signature .....

Members may instruct their proxy on how they wish to vote or to vote as the proxy considers fit.

## COMMITTEE NOMINATION FORM

We, the undersigned, wish to nominate:

Name ..... Membership .....  
Grade .....  
Address .....

for election to the committee of the SA Division of the Australian Acoustical Society

Proposer: Name .....  
Address .....  
Signature .....

Seconder: Name .....  
Address .....  
Signature .....

I consent to this nomination:

Nominee's signature ..... Date .....

Proxy forms and Committee nomination forms may be lodged by posting to Mike Kidner, SA Division Secretary, AAS C/- School of Mechanical Engineering, University of Adelaide SA 5005 or handed in at the AGM when called for by the Chair.



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## **CALL FOR NOMINATIONS**

### ***DAVID BIES PRIZE IN ACOUSTICS***

In recognition of the contributions of David Bies to the science, practice, and education in acoustics, the South Australian Division of the Australian Acoustical Society has established a Prize to recognise outstanding contributions in these areas.

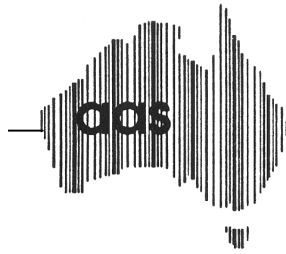
The Prize is available each year and may be awarded to a member(s) of the Australian Acoustical Society who is/are an acoustical practitioner(s) in South Australia, or has/have a meritorious contribution to the discipline in South Australia.

Nominations can be made by writing to the committee to be received prior to the meeting on 12 September 2007, via Mike Kidner, SA Division Secretary, AAS C/- School of Mechanical Engineering, University of Adelaide SA 5005

More information can be obtained by visiting our web site:

<http://www.mecheng.adelaide.edu.au/aas/>

or by contacting the SA Division Secretary, Mike Kidner (Telephone: 8303 5460)



MINUTES OF 30<sup>th</sup> ANNUAL GENERAL MEETING (13<sup>th</sup> Sept. 2006)

SOUTH AUSTRALIAN DIVISION  
**30<sup>th</sup> ANNUAL GENERAL MEETING**  
Wednesday 13 September 2006

**1.0 Present**

Peter Teague, Colin Hansen, Anthony Zander, Carl Howard, Luke Zoontjens, Mike Kidner, Matthew Stead, David Rennison, Chris Dimitropoulos, Graham Cohen, Alex Marchuk, John Cooper, Tom Evans, Peter Maddern, Peter Heinze, Valeri Lenchine.

**2.0 Call for proxies**

No proxies.

**3.0 Apologies**

Peter Swift, Byron Martin, Ben Cazzolato, Adrian Jones, Jason Turner, Ivailo Dimitrov.

**4.0 Minutes**

Last year's Minutes accepted.

Proposed: Mike Kidner  
Seconded: Carl Howard.

**5.0 Business arising**

No business arising.

**6.0 Chair's report**

Peter Teague spoke to his report.

**7.0 Treasurer's report**

Peter Teague spoke to Byron's report. Potential profit \$5k - \$10k from conference (TBC).

Confirmation of same auditor.

Proposed: Mike Kidner  
Seconded: Matthew Stead

**8.0 Registrar's report**

Increase in membership to 48.

**9.0 Committee members elected**

Colin Hansen,  
Peter Maddern,  
Carl Howard,  
Peter Heinze,  
Matthew Stead,  
Valeri Lenchine,  
Ben Cazzolato (part-time; when available)  
Anthony Zander on study leave next year; Jason Turner does not have sufficient time.

**10.0 Dave Bies prize**

No nomination for D Bies' prize.

Meeting closed, 7:42pm.