

Program Summary

Monday 18th November 2013

Time	Room A	Room B
8:00	Conference Registration (Convention Centre Foyer)	
8:40	Conference Opening	
9:00	Session 1: Identifying and meeting new challenges in shallow-water acoustics Chair: Dr Adrian Jones	
9:45	Session 2: Legislation and Standards Chair: Peter Heinze	
10:25	Morning Tea (Exhibition Area and Foyers)	
10:50	Session 3A: Industrial Acoustics Chair: A/Prof Dr Anthony Zander	Session 3B: Underwater Acoustics Sensors Chair: Dr Alex Zinoviev
12:30	Lunch (Exhibition Area and Foyer)	
13:30	Session 4A: Transportation Noise 1 Chair: Dr Valeri Lenchine	Session 4B: Vibration 1 Chair: A/Prof Dr Nicole Kessissoglou
15:10	Afternoon Tea (Exhibition Area and Foyers)	
15:40	Session 5A: Architectural and Building Acoustics Chair: Dr Luke Zoontjens	Session 5B: Instrumentation Chair: Dr Carl Howard
17:30	Australian Acoustical Society AGM	
19:00	Conference Dinner (Currency Creek Winery)	

Tuesday 19th November 2013

Time	Room A	Room B
8:40	Session 1: Wind turbine noise: an overview of acoustical performance and effects on residents Chair: Dr Norm Broner	
9:25	Session 2: Human Response Chair: Prof Lex Brown	
10:25	Morning Tea (Exhibition Area and Foyers)	
10:50	Session 3A: Wind Turbine Noise 1 Chair: Dr Norm Broner	Session 3B: Underwater Acoustic Modeling Chair: Dr Adrian Jones
12:30	Lunch (Exhibition Area and Foyer)	
13:30	Session 4A: Wind Turbine Noise 2 Chair: Jon Cooper	Session 4B: Underwater Acoustics 1 Chair: Dr Laura Brooks
15:10	Afternoon Tea (Exhibition Area and Foyers)	
15:40	Session 5A: Environmental Acoustics Chair: Marion Burgess	Session 5B: Underwater Acoustics 2 Chair: Dr Alec Duncan
17:20	End of Day 2 Sessions Free Time	
17:30	Australian Educators in Acoustics Inaugural Meeting	

Wednesday 20th November 2013

Time	Room A	Room B
8:40	Session 1A: Aeroacoustics Chair: A/Prof Con Doolan	Session 1B: Vibration 2 Chair: Byron Martin
10:20	Morning Tea (Exhibition Area and Foyers)	
10:50	Session 2A: Transportation Noise 2 Chair: Darren Jurevicius	Session 2B: Miscellaneous Chair: A/Prof Dr Ben Cazzolato
12:30	Lunch (Exhibition Area and Foyer)	
13:30	Conference Close	

Program

08:00 **Rooms A and B: Conference Registration (Convention Centre Foyer)**

08:40 **Rooms A and B: Conference Opening**

Session 1 Rooms A and B Monday: Identifying and meeting new challenges in shallow-water acoustics

Chair: Dr Adrian Jones

09:00 Plenary Presentation: Identifying and meeting new challenges in shallow-water acoustics
Duda, Timothy

Session 2 Rooms A and B Monday: Legislation and Standards

Chair: Peter Heinze

09:45 "A-Weighting": Is it the metric you think it is?
McMinn, Terrance

10:05 Regulating the control of external noise for new residential development: a South Australian perspective
Jurevicius, Darren

10:25 **Morning Tea (Exhibition Area and Foyers)**

Session 3 Room A Monday: Industrial Acoustics

Chair: Dr Zebb Prime

10:50 The noise of cloud computing
Kochanowski, Radek

11:10 Prediction of radiated sound power from vibrating structures using the surface contribution method
Peters, Herwig; Kessissoglou, Nicole; Lösche, Eric; Marburg, Steffen

11:30 Use of noise cancelling headphones to assist recall of spoken information in noisy environments
Burgess, Marion; Molesworth, Brett

11:50 Transmission matrix model of a quarter-wave-tube with gas temperature gradients
Howard, Carl

12:10 Material property detection by mining pick resonance
Marston, Brian

Session 3 Room B Monday: Underwater Acoustics Sensors

Chair: Dr Alex Zinoviev

10:50 Keynote Presentation: Australian sonar transducer technology
Bedwell, Ian

11:10 The effect of polyurethane encapsulant on the response of PVDF hydrophones in the frequency range from 30 kHz to 100 kHz.
Munyard, Andrew; Matthews, Dave; Killeen, Damien

11:30 Fibre optic towed array: the high tech compact solution for naval warfare
Souto, Fabio

11:50 A fibre laser sensor seabed array
Foster, Scott; Tikhomirov, Alexei; Harrison, Joanne; van Velzen, John

12:10 An initial assessment of effects of seafloor roughness on coherent sound reflection from the seafloor
Jones, Adrian; Duncan, Alec; Maggi, Amos

12:30 **Lunch (Exhibition Area and Foyer)**

Session 4 Room A Monday: Transportation Noise 1

Chair: Dr Valeri Lenchine

13:30 Noise reduction and energy savings of standard sound insulation packages for the control of road traffic noise
Huygrecs, Neil; Morphet, Adrian; McIntosh, James

13:50 Issues in the measurement of sleep-related noise events in road traffic streams
Brown, A.L.

14:10 Response to change in noise exposure: an update
van Kamp, Irene; Brown, A.L.

14:30 A practical review of traffic noise model simplifications
Miller, Heath; Parr, Fiona

- 14:50 Tyre/road noise reduction of poroelastic road surface tested in a laboratory
Sandberg, Ulf; Świczko Zurek, Beata; Ejsmont, Jerzy; Ronowski, Grzegorz

Session 4 Room B Monday: Vibration 1

Chair: A/Prof Nicole Kessissoglou

- 13:30 Vibration assessment of Adelaide's new riverbank foot-bridge
Lee, Yong-Keat; Mackenzie, Neil
- 13:50 Dynamic assessment of wind sensitive stadium structures
Gaekwad, Jason; Mackenzie, Neil
- 14:10 Footfall vibration and the dynamic response of different structures – a case study comparing predicted and measured results
Miller, Aaron; Duschlbauer, Dominik
- 14:30 Use of block pseudo angular acceleration for engine misfire diagnosis
Chen, Jian; Randall, Robert
- 14:50 Impact generating mechanisms in damaged rolling element bearings
Singh, Sarabjeet; Köpke, Uwe; Howard, Carl; Petersen, Dick; Rennison, David

15:10 Afternoon Tea (Exhibition Area and Foyers)

Session 5 Room A Monday: Architectural and Building Acoustics

Chair: Dr Luke Zoontjens

- 15:40 Acoustic absorption and fire retardant property of natural fibers
Mohammad, Hosseini Fouladi; Satesh, Narayana Namasivayam; Chong, Chong Chien Hwa; Masomeh, Ghassem; Pang, Zong Xin; Sim, Yeng Peng; Hamidreza, Soheili Najafabadi
- 16:00 Acoustic design aspects of the Brisbane supreme & district courts
Mackenzie, Neil; Dawson, Bill; Lee, Yong-Keat; Naidu, Magaesh
- 16:20 The regulation of voice levels in various room acoustic conditions
Yadav, Manuj; Cabrera, Densil; Lee, Doheon; Miranda, Luis; Martens, William
- 16:40 Micro-perforated sound absorbers – applications
Nocke, Christian; Stuart,
- 17:00 Auralisation of stage acoustics for large ensembles
Jimenez, Daniel; Vandenburg, Nicholas; Miranda, Luis; Yadav, Manuj; Cabrera, Densil

Session 5 Room B Monday: Instrumentation

Chair: Dr Carl Howard

- 15:40 New acoustical pattern recognition approach to identify different stages of a cooking process. the boiling water case
Tabacchi, Mattia
- 16:00 A comparison of popular beamforming arrays
Prime, Zebb; Doolan, Con
- 16:20 Factors influencing the successful measurement of the sound power absorption coefficient using cepstral techniques
Jenkin, Lance; Jongens, A.W.D
- 16:40 Simulation and design of a microphone array for beamforming on a moving acoustic source
Petersen, Dick; Howard, Carl
- 17:00 Vibration energy harvesting for aircraft, trains and boats
Hart, Genevieve; Moss, Scott; Nagle, Dylan; Jung, George; Wilson, Alan; Ung, Chandarin; Chiu, Wing; Crew, Greg

17:30 Australian Acoustical Society AGM

19:00 Conference Dinner (Currency Creek Winery)

Session 1 Rooms A and B Tuesday: Wind turbine noise: an overview of acoustical performance and effects on residents

Chair: Dr Norm Broner

- 08:40 Plenary Presentation: Wind turbine noise: an overview of acoustical performance and effects on residents
van den Berg, Frits

Session 2 Rooms A and B Tuesday: Human Response

Chair: Prof Lex Brown

- 09:25 Keynote Presentation: Caring for the sound environment in hospitals - a health issue for patients and staff
Persson Waye, Kerstin

- 09:45 Noise exposure in the Australian workforce
Williams, Warwick
- 10:05 Residential noise exposure and chronic stress in children
Evans, Gary

10:25 Morning Tea (Exhibition Area and Foyers)

Session 3 Room A Tuesday: Wind Turbine Noise 1

Chair: Dr Norm Broner

- 10:50 Analysis of unweighted low frequency noise and infrasound measured at a residence in the vicinity of a wind farm
Hansen, Kristy; Zajamsek, Branko; Hansen, Colin
- 11:10 Meteorological stability impacts on wind turbine noise assessments
Dawson, Bill; Mackenzie, Neil
- 11:30 Effects of different meteorological conditions on wind turbine noise
Evans, Tom; Cooper, Jonathan
- 11:50 Automated detection and analysis of amplitude modulation at a residence and wind turbine
Cooper, Jonathan; Evans, Tom

Session 3 Room B Tuesday: Underwater Acoustic Modeling

Chair: Dr Adrian Jones

- 10:50 A study of the effects on transmission loss of water column features as modelled for an area off the east Australian coast
Jones, Adrian; Zinoviev, Alex; Greening, Michael
- 11:10 Approximate solutions for an acoustic plane wave propagation in a layer with high sound speed gradient
Zinoviev, Alex; Jones, Adrian
- 11:30 Efficient modelling of mid to high frequency underwater acoustic propagation
Duncan, Alec; Parnum, Iain; Henley, Peter
- 11:50 Shallow water sound propagation over a layered calcarenite seafloor: an exercise in benchmarking various models
Koessler, Matthew; Duncan, Alec; Gavrillov, Alexander

12:30 Lunch (Exhibition Area and Foyer)

Session 4 Room A Tuesday: Wind Turbine Noise 2

Chair: Jon Cooper

- 13:30 3D atmospheric tomography using UAVs
Rogers, Kevin; Finn, Anthony
- 13:50 Development of a technique to minimise the wind-induced noise in shielded microphones
Alamshah, Seyed Vahid; Zander, Anthony; Lenchine, Valeri
- 14:10 Indoor Infrasound and low-frequency noise monitoring in a rural environment
Zajamsek, Branko; Doolan, Con; Moreau, Danielle; Hansen, Kristy
- 14:30 Forecasting low frequency noise from wind farms
Brown, Rhys; Najera Medina, Luis; Mitchell, Andrew
- 14:50 Environmental Noise Assessments of existing and new major resource developments
White, Geoff; Kochanowski, Radek

Session 4 Room B Tuesday: Underwater Acoustics 1

Chair: Dr Laura Brooks

- 13:30 Keynote Presentation: Hydroacoustic characterisation of the AMC cavitation tunnel
Doolan, Con; Brandner, Paul; Butler, Daniel; Pearce, Bryce; Moreau, Danielle; Brooks, Laura
- 13:50 Clean data training approach to active sonar classification
Kouzoubov, Alexei; Nguyen, Binh; Wood, Shane; Gillard, Chris
- 14:10 Transformation Acoustics and Acoustic Metamaterials: Review of Developments and Discussions
Zhang, Yong
- 14:30 Investigation of sound radiation from a water-loaded cylindrical enclosure due to airborne noise
Pan, Xia; MacGillivray, Ian; Tso, Yan; Peters, Herwig
- 14:50 Effects of mass distribution and buoyancy on the sound radiation of a fluid loaded cylinder
Wu, Hongjian; Kinns, Roger; Kessissoglou, Nicole; Peters, Herwig

15:10 Afternoon Tea (Exhibition Area and Foyers)

Session 5 Room A Tuesday: Environmental Acoustics

Chair: Marion Burgess

- 15:40 Sound directivity from high temperature exhaust stacks
Cazzolato, Ben; Hansen, Colin; Robertson, William; Zhao, William
- 16:00 Sound localization of mechanical equipment/ mobile plants in median and vertical plane during environmental noise survey
Lau, Akil
- 16:20 Numerical study of noise barrier designs
Fard, Samaneh; Kessissoglou, Nicole; Samuels, Stephen; Burgess, Marion
- 16:40 Estimating underwater Sound Pressure Levels that correspond to maximum legal disturbance of seals and turtles
Hall, Marshall V.

Session 5 Room B Tuesday: Underwater Acoustics 2

Chair: Dr Alec Duncan

- 15:40 Transient underwater acoustic channel simulator development
Caley, Michael; Duncan, Alec
- 16:00 A review of current marine mammal detection and classification algorithms for use in automated passive acoustic monitoring.
Bittle, Michael; Duncan, Alec
- 16:20 Track-before-detect for an active towed array sonar
Vu, Han; Davey, Samuel; Fletcher, Fiona; Arulampalam, Sanjeev; Ellem, Richard; Lim, Cheng-Chew
- 16:40 Modelling and tracking of dynamic spectra using a non-parametric bayesian method
Carevic, Dragana
- 17:00 Increasing whale numbers have substantially increased ambient noise in Australian waters.
Cato, Douglas; Dunlop, Rebecca; McCauley, Robert; Noad, Michael

17:20 End of Day 2 Sessions Free Time

17:30 Australian Educators in Acoustics Inaugural Meeting

Session 1 Room A Wednesday: Aeroacoustics

Chair: A/Prof Con Doolan

- 08:40 Noise modelling of wing-in-junction flows
Coombs, Jesse; Doolan, Con; Moreau, Danielle; Zander, Anthony; Brooks, Laura
- 09:00 Localisation of a stationary time-harmonic dipole sound source in flows using time-reversal simulation
Mimani, Akhilesh; Doolan, Con; Medwell, Paul
- 09:20 Aerofoil tones produced by a plate with cavity: the effect of acoustic forcing
Schumacher, Karn; Doolan, Con; Kelso, Richard
- 09:40 Directivity pattern of flow-induced noise from a wall-mounted, finite length circular cylinder
Porteous, Ric; Doolan, Con; Moreau, Danielle
- 10:00 An experimental investigation of airfoil tonal noise caused by an acoustic feedback loop
Arcondoulis, Elias; Doolan, Con; Zander, Anthony; Brooks, Laura

Session 1 Room B Wednesday: Vibration 2

Chair: Byron Martin

- 08:40 Experimental results of a 1D passive magnetic spring approaching quasi-zero stiffness and using active skyhook damping
Robertson, William; Cazzolato, Ben; Zander, Anthony
- 09:00 Vibration transmission in a double-leaf plate with random rigidities and junctions
Chung, Hyuck
- 09:20 Application of polynomial chaos expansions to analytical models of friction oscillators
Zhang, Zhi; Oberst, Sebastian Moriz; Lai, Joseph
- 09:40 A nonlinear dynamic model of the vibration response of defective rolling element bearings
Moazenahmadi, Alireza; Petersen, Dick; Howard, Carl
- 10:00 Modal analysis of structures with uncertainties using polynomial chaos expansion
Yang, Ji; Kessissoglou, Nicole

10:20 Morning Tea (Exhibition Area and Foyers)

Session 2 Room A Wednesday: Transportation Noise 2

Chair: Darren Jurevicius

- 10:50 Assessment of rail noise based on generic shape of the pass-by time history
Lenchine, Valeri; Song, Jonathan
- 11:10 Change in traffic noise levels after road pavement maintenance using diamond grinding or milling
Gange, Michael; Phillips, Rodney
- 11:30 A comparison of diesel and electric locomotive noise emissions from coal terminal rail loop and spur line
Terlich, Matthew

Session 2 Room B Wednesday: Miscellaneous

Chair: A/Prof Ben Cazzolato

- 10:50 Sound Transmission Loss of Double Layer Impervious Membranes with an Internal Microperforated Membrane
Li, Chenxi; Cazzolato, Ben; Zander, Anthony
- 11:10 A review of MD simulations of acoustic absorption mechanisms at the nanoscale
Ayub, M; Zander, Anthony; Howard, Carl; Cazzolato, Ben; Huang, D
- 11:30 Planar analysis of a quasi-zero stiffness mechanism using inclined linear springs
Robertson, William; Cazzolato, Ben; Zander, Anthony
- 11:50 A CFD-BEM coupling technique for low Mach number flow induced noise
Croaker, Paul; Kessissoglou, Nicole; Marburg, Steffen
- 12:10 Vibration Monitoring - Future Directions and Best Practice for Infrastructure Projects
Stead, Matthew; Kallstrom, Owe

12:30 Lunch (Exhibition Area and Foyer)

13:30 Conference Close
