Wednesday 2 November 2011

ACOUSTICS 2011

Registration

Short Course

Technical Tour

Official Opening and Welcoming Function

Short Course: *Environmental Noise Assessment*

| 8:30 | | | Basic Noise Theory Presenter: Ron Rumble |
|-------|--|--|--|
| 10:30 | | | Morning Tea |
| 11:00 | | | Computer Modelling |
| | | | Presenter: Peter Karantonis |
| 13:00 | Registration | Technical Tour: Whale Watch Cruise | Lunch |
| 14:00 | | Departs Surfers Paradise wharf | Legislation |
| | | (42 Ferny Avenue) at 14:00 | Presenter: Michael Hayne |
| 15:30 | | | Afternoon Tea |
| 15:45 | | | Development Assessment |
| | | | Presenter: Ron Rumble |
| 16:45 | | | Open Forum |
| | | | Moderator: Ron Rumble |
| 17:00 | | | Close Shortcourse |
| 17:30 | | Disembark Surfers Paradise Wharf 17:30 | |
| | | | |
| 19:00 | Official Opening ACOUSTICS 2011 and Welcoming Barbeque | | |

| 7:00 | Breakfast | | | | |
|-------|---|---|--|--|--|
| 8:00 | | Registration | | | |
| 8:55 | | Conference Introdu | ction - Boulevard 1 | | |
| 9:00 | Plenary 1: Dr. David Hiller 005: The prediction and mitigation of vibration impacts of tunnelling Chair: Matt Terlich Boulevard 1 | | | | |
| | Session 1A Infrastructure Development Chair: Claire Richardson Boulevard 1 | Session 1B: Sleep disturbance & health effects Chair: Russ Brown Boulevard 2 | Session 1C: Room Acoustics Chair: Ron Rumble Boulevard 3 | Session 1D: Noise and Vibration Control I Chair: Ben Cazzolato Palm 3 (Level 3) | |
| 9:45 | 033: Measurement and Prediction of Construction Vibration Affecting Sensitive Laboratories. Kai Fisher | 107: Disturbances of sleep by noise. (Keynote). B. Greifahn | 70: Decay Envelope Manipulation of Room Impulse Responses: Techniques for Auralization and Sonification. Doheon Lee | 64: Adaptive-passive quarter-wave tube resonator silencer. Carl Howard | |
| 10:05 | 108: Construction Noise Management for Hinze Dam Stage 3 Joseph Lee | | 85: The impact of head-tracking in virtual room acoustic simulations for egocentric sound source. Manuj Yadav | 65: Computational optimisation of the acoustic performance of mufflers for sleep apnoea devices. Peter Jones | |
| 10:25 | 026: Construction Noise Management Plans: A case study Chris Schulten | 114: Strategic Level Assessment of the Health Effects of Environmental Noise. Lex Brown | 72: Comparison of Room Acoustic Measurements of Diffuseness with a Theoretical Model. David Spargo | 118: A comparison of vibro-acoustic modelling techniques used for resonance changer tuning. Paul Dylejko | |

| 10:45 | | Morning Tea (Trad | le Exhibition Area) | |
|-------|--|---|--|---|
| | Session 2A: Non-Destructive Testing Chair: Martin Veidt Boulevard 1 | Session 2B Sleep Disturbance Workshop Boulevard 2 | Session 2C: Music Acoustics Chair: Ben Hall Boulevard 3 | Session 2D: Noise Control Elements Chair: Ian Hillock Palm 3 (Level 3) |
| 11:10 | 102: Damage Assessment of Composite Archery Arrows. Ben Cazzolato | Chair: Russ Brown Panel: Lex Brown Frank Henry Barbara Greifahn | 142: The acoustics of registers and resonances in singing. John Smith (Keynote) | 92: Micro-perforated sound absorbers in stretched materials. Christian Nocke |
| 11:30 | 138: Damage Detection in Layered Concrete Structures. Mitchell Willcocks (Invited: Acoustics Bursary, Qld Div) | | | 77: A Review of Acoustic Absorption Mechanisms of Nanoscopic Fibres. Md. Ayub |
| 11:50 | 45: Effect of insulation paper ageing on the vibration of electrical conductors. Ming Jin | | 71: The Loudness Envelope of the Messa di Voce. Densil Cabrera | 113: Building Material Panel Sound Reduction Index Evaluation using an Impedance Tube. Stephen Collings |
| 12:10 | 35: Optimally Parametrized Wavelet Transform for Machine Residual Life Prediction. Muhammad Farrukh Yaqub | | 82: Correlations among subjective performance qualities and objective acoustical parameters of the didjeridu. Joe Wolfe | 16: Investigations of Tuned Vibration Absorber with High Damping for Increasing Acoustic Panels Sound Transmission Loss in Low Frequency Range. Karel Ruber |

| 12:30 | LUNCHEON (Trade Exhibition Area) | | | | |
|-------|---|--|--|--|--|
| 13:30 | Plenary 2: James Lynch 025: Acoustical Oceanography and Shallow Water Acoustics | | | | |
| | | Chair: Ale Boule | | | |
| | Session 3A: Underwater Acoustics I Chair: Alec Duncan Boulevard 1 | Session 3B: Descriptors and Metrics Chair: Peter Heinze Boulevard 2 | Session 3C: Infrastructure Development Chair: Gillian Adams Boulevard 3 | Session 3D: Noise and Vibration Control II Chair: Jia Pan Palm 3 (Level 3) | |
| 14:15 | 128: Listening to the ocean: insights into marine animals and the ocean environment. Douglas H. Cato (Keynote) | 52: The Evolution of Aircraft Noise Descriptors over the Past Decade. David Southgate (invited) | 42: Rail Transit Noise and Vibration Impacts – Why Environmental Planning Doesn't Always Work. Steven Wolfe (keynote) | 62: A new cost function algorithm for adaptive passive vibration and acoustic resonators. Carl Howard | |
| 14:35 | | 58: In Search of Better Measurement Statistics for Environmental Noise. Huub Bakker | | 69: Performance evaluation of an active headrest using the remote microphone technique. Ben Cazzolato | |
| 14:55 | 49: Recent Developments in Modelling Acoustic Reflection Loss at the Rough Ocean Surface. Adrian Jones | 6: A brief review of road traffic noise indicators and correlations with the LA10(18hour). Daniel Naish | 67: The Clem7 Motorway Tunnel: Mechanical and Electrical Plant Acoustic Design and Performance. Claire Richardson | 56: Hybrid Passive/Active Inertial Actuators to Attenuate the Structural and Acoustic Responses of a Submerged Hull. Peter Gangemi | |
| 15:15 | 12: Coupled Fluid-Structure Interactions Using the Fast Multipole Method. Daniel Wilkes | 78: Government Environmental Noise Policy – A Personal Account of the Last 40 Years. Roger Treagus | 130: Noise constraints for coal seam gas development and operations. John Savery (Invited) | 96: Design and Evaluation of a Pole Placement Controller for Controlling Vibration of Structures. Xia Pan | |

| 15:35 | Afternoon Tea (Trade Exhibition Area) | | | |
|-------|---|---|---|--|
| | Session 4A: Underwater Acoustics II Chair: Adrian Jones Boulevard 1 | Session 4B: Environmental Noise Chair: Dan Naish Boulevard 2 | Session 4C: Vibrations Chair: Boulevard 3 | Session 4D: Flow Induced Noise I Chair: David Mee Palm 3 (Level 3) |
| 16:00 | 87: How Wrong Can You Be? Can a Simple Spreading Formula Be Used to Predict Worst-Case Underwater Sound Levels? Alec Duncan (invited) | 115: Soundscapes and Soundscape Planning. Lex Brown (Invited) | 21: On the symmetry of the impedance matrix for acoustic radiation modes and sound power evaluation. Herwig Peters | 44: Empirical Study of the Tonal Noise Radiated by a Sharp-edged Flat Plate at Low-to-moderate Reynolds Number. Danielle Moreau |
| 16:20 | 22: A dynamic configurable sensor for fractional-octave-band underwater acoustic measurements. Matthew Legg | 37: Noise Reduction through Facades with Open Windows. Mitchell Ryan (invited: RJ Hooker Bursary, QLD Div) | 34: Finite Element Modelling of the Vibration of a Power Transformer. Yuxing Wang | 46: The Effect of Trailing Edge Serrations on Flat Plate Self-noise at Low-to-moderate Reynolds Number. Danielle Moreau |
| 16:40 | 120: Subarray Beamforming for Reducing the Effect of Flow Noise on Sonar Arrays. James Leader | 15: Application of environmental criteria and the Queensland Development Code to proposed development contiguous with transport corridors. Arthur Hall | 111: Gearbox Fault Simulation using Finite Element Model Reduction Technique. Lav Deshpande | 47: Analysis Of Noise Generated By A Wall-Mounted Finite-Length Airfoil. Narasimha M Thota |
| 17:00 | 134: Conceptual development of a dynamic underwater acoustic channel simulator. Michael Caley | Workshop BUILDING DESIGN FOR TRANSPORTATION NOISE: TECHNICAL ACOUSTICS AND POLICY, GETTING THE BALANCE RIGHT Chair: Daniel Naish | 95: Development of a magnetic levitation vibration isolator using inclined permanent magnetic springs. Yann Frizenschaf | 43: Turbulent Trailing Edge Noise Estimation Using a RANS-based Statistical Noise Model. Cristobal Albarracin |
| 17:20 | 97: Echo time spreading and the definition of transmission loss for broadband active sonar. Yong Zhang | Panel: Dave Southgate Roger Treagus Stephen Pugh Arthur Hall | 116: Analytical Modelling of Single and Two-Stage Vibration Isolation Systems. Stephen Moore | 53: Multipole Moment Preserving Condensation of Flow Induced Quadrupole Acoustic Sources. Paul Croaker |
| 17:40 | Close Day 1 | | | |

Thursday 3 November 2011 Australian Acoustical Society Annual General Meeting ACOUSTICS 2011 CONGRESS DINNER



| 7:00 | Breakfast | | | | |
|---------------|--|---|---|---|--|
| 9:00 | Plenary 3: Professor David Thompson 009 The role of theoretical models in shaping railway noise policy and mitigation strategies. Chair: Paul Meehan Boulevard 1 | | | | |
| | Session 5A: Rail Noise I Chair: Paul Meehan Boulevard 1 | Session 5B: Wind Turbines I Chair: Matt Terlich Boulevard 2 | Session 5C: Road Traffic Noise I Chair: Steve Pugh Boulevard 3 | Session 5D: Flow Induced Noise II Chair: Con Doolan Palm 3 (Level 3) | |
| 9:45 10:05 | 40: Predicting variable speed rail corrugation growth using statistical moments. Ross Batten 51: Railway rolling noise prediction | 50: Comparison of Compliance Results from the Various Wind Farm Standards Used in Australia. Jonathan Cooper 29: Contribution of Wind Farm Into | 110: Traffic Noise Prediction with Nord2000 – An Update. Jørgen Kragh (Keynote) | 54: A Simple Approach to Estimate Flow- Induced Noise from Steady State CFD Data. Paul Croaker 48: On the equivalence of the Ffowcs | |
| | under European conditions. Shijie Jiang | Noise at a Distant Receiver in a Rural Environment. Byron Holmes | | Williams – Hawkings and the non- uniform Kirchhoff equations of aeroacoustics. Alex Zinoviev | |
| 10:25 | Rail workshop session 1 | 30: Comparison of Predicted and Measured Wind Farm Noise Levels and Implications for Assessments of New Wind Farms. Tom Evans | 100: Noise level variation in the CBD with height. Sangarapillai Kanapathipillai | 105: The Characteristics of Sound Radiation by Turbulent Flow over a hydrofoil and a bare-hull Suboff. Li Chen | |

| 10:45 | Morning Tea (Trade Exhibition Area) | | | |
|-------|-------------------------------------|-----------------------------------|------------------------------------|---|
| | Session 6A Rail Noise II | Session 6B: Wind Turbines II | Session 6C: Road Traffic Noise II | Session 6D: Structural Vibration |
| | Chair: Dave Anderson | Chair: Christophe Delaire | Chair: Arthur Hall | Chair: Nicole Kessissoglou |
| | Boulevard 1 | Boulevard 2 | Boulevard 3 | Palm 3 (Level 3) |
| 11:10 | 98: Groundborne Noise and | 17: Concepts for the control of | 39: Prediction of Carpark Noise in | 141: Analysis of underwater vibration of |
| | Vibration Control at Performing | wind turbine noise. | Australian Conditions. | a torpedo-shaped structure subjected to |
| | Arts Centers using Elastomeric | Con Doolan | Laurence Nicol | an axial excitation. |
| | Bearings. | | | Jie Pan |
| | Steven Wolfe | | | |
| 11:30 | 38: Reducing Secondary Noise On | 57: Problems Measuring Low | Workshop: | 66: The Effect of Distribution for a |
| | Nanjing Metro, China. | Frequency Sound Levels Near Wind | Low Noise Road Surfaces | Moving Force. |
| | Steve Barlow | Farms. | | Ahmed Reda |
| | | B. Rapley | | |
| 11:50 | 88: A numerical study to evaluate | 73: Wind Turbine Noise: why | Panel: Arthur Hall | 123: Structural vibration transmission in |
| | dynamic responses of voided | accurate prediction and | Steve Pugh | stiffened structures. |
| | concrete sleepers to impact | measurement matter. | | James Forrest |
| | loading. | Bob Thorne | | |
| | Sak Kaewunruen | | | |
| 12:10 | Rail workshop session 2 | 119: The Peril of Ignoring Insect | | 36: Vibration characteristics of a cylinder |
| | | Noise in the Assessment of | | with asymmetries. |
| | | Ambient Noise Levels. | | Heye Xiao |
| | | Matthew Terlich | | |

| 12:30 | LUNCHEON (Trade Exhibition Area) | | | |
|-------|--|---|---|--|
| | Session 7A Rail Noise 3 Chair: David Thompson Boulevard 1 | Session 7B: Wind Turbines and Low Frequency Noise Chair: Norm Broner Boulevard 2 | Session 7C: Directivity and Response Chair: David Spearritt Boulevard 3 | Session 7D: Acoustical Sensor Networks Chair: Michael Hayne Palm 3 (Level 3) |
| 13:30 | 122: Recent Developments in the Practical State-of-the-Art in Managing Rail Noise in Australia. Dave Anderson (invited) | 28: A Preliminary Investigation Into The Determination Of The Inaudibility Level Of Mechanical Plant And Music Noise In The Presence Of Ambient Background Noise. Rodney Phillips | 99: Practical Considerations for Designing Road Tunnel Public Address Systems. Peter Patrick (invited) | 89: Fibre optic acoustic sensing for intrusion detection systems. Gary Allwood |
| 13:50 | 19: Some Pitfalls in Using AS2377- 2002 for Passby Noise Measurement. David Hanson | 23: Low-frequency and Tonal Characteristics of Transformer Noise. Michael Gange | 137: Road tunnel acoustics. Peter Ridley | 139: Development of a Photo-Acoustic Trace Gas Sensor. Christopher Kelly (invited: RJ Hooker Bursary, QLD Div) |
| 14:10 | 79: Investigation about the effect of angle of attack and relative humidity on wheel squeal. Xiaogang Liu | Workshop: Wind Turbines and Low Frequency Noise Chair: Norm Broner | 76: Close-range variation in binaural responses to orally-radiated sources. William Martens | 93: Sound Monitoring Networks New Style. Dick Botteldooren |
| 14:30 | 75: Determination of track decay rate using field trials. Wenxu Li | | 136: Applicability of spherical microphone arrays in room acoustics. Magdalena BOECK | 14: UAV-Based Acoustic Tomography. Anthony Finn |
| 14:50 | Rail workshop session 3 | | 94: Acoustic source beam control using a compact virtual loudspeaker array. Ken Stewart | 106: Acoustics and the Smart Phone. Rhys Brown |

| 15:10 | | Afternoon Tea (Trade Exhibition Area) | | |
|-------|---|---|-------------------|--|
| | Session 8A Marine Bio-Acoustics Chair: Doug Cato Boulevard 1 | Session 8B: Psychoacoustics and Design Chair: Chris Schulten Boulevard 2 | | |
| 15:40 | 101: Acoustic methods to mitigate bycatch and depredation by marine mammals on commercial fishing operations in Australian waters: Fishermens options. Geoff McPherson (invited) | 140: Noise level assessments: Subjective vs objective measures. Elizabeth Beach | | |
| 16:00 | 127: Detection of beaked whale clicks in underwater noise recordings. lain Parnum | 3: Emergency Vehicle Auditory Warning Signals: Physical and Psychoacoustic Considerations. Aaron Maddern | | |
| 16:20 | 91: Measurements Of Snapping Shrimp Noise Along The Cooks River, Sydney. Marshall Hall | | | |
| 16:40 | 27: Underwater environmental impact assessments on marine mammals and fishes from sound radiated by anthropogenic noise. Antoine David | 112: Acoustic Design Approach for Hospitals. Samuel Clarke | | |
| 17:00 | | Close Day 2 - | Conference Closes | |