<table>
<thead>
<tr>
<th>Time</th>
<th>Concurrent Session 4</th>
<th>Concurrent Session 5</th>
<th>Concurrent Session 6</th>
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<tbody>
<tr>
<td>9.00am</td>
<td>A fast multipole boundary element method for acoustics in viscothermal fluids (071) E. Preus, J. Menz, C. Aelst, S. Bertling</td>
<td>A simple transformation for switching between the stochastic responses in different systems (045) S. De Rosa, A. Casaburn, G. Petrone, P. Franco</td>
<td>Nonlinear dynamics of acoustically levitated particles (025) S. Lee, A. Dolay, E. Tenenbaum</td>
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</table>
| 9.15am    | An accelerated deflation preconditioner for acoustic BEM systems based on subspace recycling (032) D. Panagiotopoulos, E. Deckers, W. Desmet               | The natural frequency estimation for a system composed of a beam and a spring-mass system (085) S. Kutas, M. Yusuke, S. Iwamoto                        | Statistical Energy Analysis (SEA): defining information, uncertainty and detail in vibro-acoustic simulations (070) P. Shorro
| 9.30am    | On the modeling of thin moving sound sources using a cutFEM approach (020) S. van Ophem, W. Desmet                                                    | Characterizing non-linear elements with free-free and fixed boundary conditions for dynamic substructuring (022) A. Zuchon, F. Naelts, A. Hlaweizm, W. Desmet   | CYCLOstationary tools to enhance relevant acoustic signals for bearing diagnostics (035) A. Mackio, H. Oenay, K. Grybua                                                      |
| 10.00am   | New porous absorber simulation techniques in the context of finite element modelling (020) M. Brizova, A. Boscquet, M. Schanz                          | A genetic-continuation algorithm for bifurcation analysis of nonlinear rotordynamic systems (051) S. Kim                                           | Validation of a hybrid deterministic-diffuse approach for prediction of diffuse vibration transmission across finite plate junctions (018) W. Stalmans, C. Van hoorick, C. Reynolds                                      |
| 10.15am   | Multi-fidelity modeling using Gaussian processes for the frequency dependent Helmholtz equation (021) C. Hubitz, M. Zier, J. Schaffter, S. Martin            | Effect of nonlinear inertia and Duffing-type nonlinearity on the dynamic behaviour of nonlinear parametrically excited cantilever beams with tip mass (058) M. Aghamshahmiri, R. Ma, V. Sorokin | The natural frequency estimation for a system composed of a beam and a spring-mass system (085) S. Kutas, M. Yusuke, S. Iwamoto                        |
| 10.30am   | Scattering from a partially coated shell immersed in water using a subtractive modelling technique (019) P. Scumacher, L. Mael, V. Meyer                        | Modeling and analysis of rotating shaft with bearing faults based on transfer matrix method (044) D. Hong, B. Kim                                         | CYCLOstationary tools to enhance relevant acoustic signals for bearing diagnostics (035) A. Mackio, H. Oenay, K. Grybua                                                      |
| 11.00am   | Keynote Forum 2                                                                                         | Impact sound isolation prediction and uncertainty quantification using a detailed source model in the modal Transfer Matrix Method (030) I. Vanier, E. P. B. Reynolds, C. Van hoorick | CYCLOstationary tools to enhance relevant acoustic signals for bearing diagnostics (035) A. Mackio, H. Oenay, K. Grybua                                                      |
| 11.15am   | Big data and machine learning in vibration and acoustics                                                | Big data and (population-based) structural health monitoring                                                                                                    | CYCLOstationary tools to enhance relevant acoustic signals for bearing diagnostics (035) A. Mackio, H. Oenay, K. Grybua                                                      |
| 11.30am   | Data-driven structural acoustics for Naval applications including Digital Twin.                         | Data-driven structural acoustics for Naval applications including Digital Twin.                                                                             | CYCLOstationary tools to enhance relevant acoustic signals for bearing diagnostics (035) A. Mackio, H. Oenay, K. Grybua                                                      |
| 12.00pm   | Lunch                                                                                                                                                          | Lunch                                                                                                                                                   | Lunch                                                                                                                                                      |

**DAY 2 - 11 JANUARY 2023**

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<tr>
<th>Time</th>
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<tr>
<td>2.00pm</td>
<td>Determination of Helmholtz-Champoux-Lind谩 model parameters with machine learning techniques (050) A. Casaburn, D. Magliscano, G. Petrone, S. De Rosa, F. Franco</td>
<td>Validation of a hybrid deterministic-diffuse approach for prediction of diffuse vibration transmission across finite plate junctions (018) W. Stalmans, C. Van hoorick, C. Reynolds</td>
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<td>2.15pm</td>
<td>Physics-informed neural networks for solving the Helmholtz equation (044) D. Schmidt, P. Baurenschmidt, C. Hubitz, S. Martin</td>
<td>The natural frequency estimation for a system composed of a beam and a spring-mass system (085) S. Kutas, M. Yusuke, S. Iwamoto</td>
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<td>2.30pm</td>
<td>Reconstruction of substructural transfer functions with operational responses using deep learning approach (079) D. Lee</td>
<td>Impact sound isolation prediction and uncertainty quantification using a detailed source model in the modal Transfer Matrix Method (030) I. Vanier, E. P. B. Reynolds, C. Van hoorick</td>
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<tr>
<td>2.45pm</td>
<td>Use of DL model to capture noise variance of EV motor by tilting and eccentricity (153) W. Jeong, H. Kim</td>
<td>Validation of a hybrid deterministic-diffuse approach for prediction of diffuse vibration transmission across finite plate junctions (018) W. Stalmans, C. Van hoorick, C. Reynolds</td>
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<td>3.00pm</td>
<td>Bayesian approach for acoustic boundary admittance estimation (061) H. Schmidt, M. Eyer, S. Martin</td>
<td>Validation of a hybrid deterministic-diffuse approach for prediction of diffuse vibration transmission across finite plate junctions (018) W. Stalmans, C. Van hoorick, C. Reynolds</td>
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<td>3.15pm</td>
<td>Road pattern classification using deep learning for noise data for autonomous driving vehicle (098) S. Lee, L. An</td>
<td>Validation of a hybrid deterministic-diffuse approach for prediction of diffuse vibration transmission across finite plate junctions (018) W. Stalmans, C. Van hoorick, C. Reynolds</td>
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<td>3.30pm</td>
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<td>4.30pm</td>
<td>Evaluation of virtual sensing with spherical array surrounding head for directional noise (066) N. Shirob, Y. Hamad, Y. Hikawa, H. Iitou, N. Kamado, S. Murata</td>
<td>Validation of a hybrid deterministic-diffuse approach for prediction of diffuse vibration transmission across finite plate junctions (018) W. Stalmans, C. Van hoorick, C. Reynolds</td>
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<td>5.30pm</td>
<td>End Departures</td>
<td>CYCLOstationary tools to enhance relevant acoustic signals for bearing diagnostics (035) A. Mackio, H. Oenay, K. Grybua</td>
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<td>6.30pm</td>
<td>Gala Dinner sponsored by Rothoblaas NZ</td>
<td>CYCLOstationary tools to enhance relevant acoustic signals for bearing diagnostics (035) A. Mackio, H. Oenay, K. Grybua</td>
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## Concurrent Session 7

### 9.00am
- **Methods of vibration field control using actuator array for improving the panel speaker sound** (113)
  - J. Ih, J. Woo, K. Lee
- **Control of chaotic vibrations in lumped mass models of the vocal folds** (046)
  - S. Guasch, M. Arnedo, A. I. Fernandez, A. Van Hirtum
- **Passive and active control of radiated sound from a coated cylindrical shell** (102)
  - C. Lin, N. Kassanosipou, I. MacGilvray, G. S. Sharma, A. Skvortsov
- **Linear vs nonlinear structural vibration behavior of steel-timber composite building elements** (043)
  - S. Chocholaty, N. B. Roozen, M. Maeder, S. Marburg
- **Application of the equivalent source method to preserve and reproduce the spatial characteristics of the sound source** (110)
  - B. Cho, I. Jung, J. Ih
- **Vibro-acoustic optimisation of composites with multiple parameters** (034)
  - M. Klaerner, S. Marburg, L. Kroll

### 9.45am
- **Minimization of acoustic power in free space using dipole sound sources** (052)
  - Y. Ogasawara, H. Iwamoto, S. Hisano
- **Beamformed envelope spectrum of acoustic signals for bearing diagnostics under varying speed conditions** (036)
  - A. Mauricio, H. Denayer, K. Gryllias

### 10.00am
- **Passive and active control of radiated sound from a coated cylindrical shell** (102)
  - C. Lin, N. Kassanosipou, I. MacGilvray, G. S. Sharma, A. Skvortsov
- **On the effects of a nonlinear boundary with cubic stiffness on the reflection coefficients of time harmonic flexural waves in an Euler-Bernoulli beam** (086)
  - M. Abdi, V. Sorokin, B. Mace
- **On the radiation of sound from an immersed cylindrical shell close to the sea surface** (048)
  - V. Meyer
- **Elastic wave propagation in one-dimensional phononic crystal with defects** (068)
  - V. G. R. C. Dos Santos, A. M. Goto, E. J. P. Miranda Jr., J. M. C. Dos Santos

### 10.15am
- **Sensitivity and bifurcation analysis of an analytical model of a trapped object in an externally excited acoustic radiation force field** (012)
  - M. Akbarzadeh, S. Oberst, S. Sepehrirahnama, B. Halkon
- **Structural system modeling from base excitation measurements using swarm intelligence** (017)
  - C. Cerini, G. Aglietti

### 10.30am
- **Uncertainty quantification of the diffuse sound field assumption in sound insulation predictions** (114)
  - E. Reynders, C. Van Hoorickx
- **Nonreciprocal vibration transmission by the use of concurrent non-collocated feedback control loops** (096)
  - N. Alujević, M. Jalšić, S. Arandia-Krešić, D. Suton
- **Analysis of hybrid diffuse-deterministic systems with domain couplings between structural and acoustic components** (106)
  - C. Van Hoorickx, E. Reynders
- **Computing dispersion relations with modal analysis methods** (021)
  - L. M. M. S. Ribeiro, D. Braghini, D. Beli, J. R. P. Arruda
- **Degradation and damage analysis of composite pressure vessels via experimental modal analysis** (057)
  - S. John, G. W. Mair
- **Parametric study of the axial force and negative stiffness of an electromagnetic mechanism for vibration isolation applications** (055)
  - M. Shahraeeni, S. Ilanko, B. Mace, V. Sorokin
- **SEA modelling of a structural system excited through a nonlinear device** (016)
  - S. John, G. W. Mair
- **Complex band structure in viscoelastic thin plate phononic crystals** (037)
  - J. M. C. Dos Santos, V. T. Dal Poggetto, J. J. P. Miranda Jr., N. M. Pugno

### 11.00am
- **Near-field modeling of the head-related transfer function by using the dummy head sound source** (111)
  - C. Jung, W. Cho, J. Chang, J. Ih
- **Structure sound field recording and reproduction using spherical microphone arrays**
- **Minimalist sound generation with reduced speaker array**
- **Near-field modeling of the head-related transfer function by using the dummy head sound source** (111)
  - C. Jung, W. Cho, J. Chang, J. Ih
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### 1.00pm
- **Lunch**

## Concurrent Session 8

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  - J. M. C. Dos Santos, V. T. Dal Poggetto, J. J. P. Miranda Jr., N. M. Pugno

### 3.00pm
- **Conference Closing Session**

### 4.00pm
- **Acoustics Research Center Laboratory Tour**