Reception 9:00 – 9:50 Welcome 9:50 – 10:00

Chair: Davide Bigoni

- **10:00-10:40** <u>Key-Note</u>: **Alexander Movchan** Waveguides subjected to gyroscopic forces. Temporal modulation. Imperfect interfaces
- **10:40-11:20** <u>Key-Note</u>: **Valery Smyshlyaev** A directional localisation and a Willis-type coupling in two-scale homogenisation of generalised elastodynamic microresonances
- **11:20-11:50 Mike Nieves** Dynamic characterisation of mesoscale discrete systems: from 1D flexural waveguides to the generalised Rayleigh beam

Lunch 12:00-13:00 (TaMeDa)

Wiener-Hopf Session

Chair: Alexander Movchan

- **13:00-13:40** <u>Key-Note</u>: **Sergei Rogosin** On solution to factorization problem for partly rational matrices of an arbitrary order
- **13:40-14:20** <u>Key-Note</u>: **Malte Peter** Water-wave diffraction and dissipation by floating or submerged poro-elastic plates factorization method
- **14:20-14:50 Lasha Ephremidze** On some generalizations of the Janashia–Lagvilava spectral

Coffee break 14:50-15:30

Chair: Sergei Rogosin

- **15:30-15:50 Grigori Giorgadze** On the partial indices of piecewise constant matrix functions induced from Fuchsian system
- **15:50-16:10 Nataliia Adukova** Factorisation of the matrix polynomial: what does exact factorisation mean?
- **16:10-16:30 Zurab Vashakidze** (online) Wave propagation in a triangular lattice with discrete sources placed on line segments

Wine reception

Chair: Malte Peter

- **9:00-9:40** <u>Key-Note</u>: **Davide Bigoni** Flutter instability & oscillatory instabilities in piecewise-smooth elastic structures
- **9:40-10:20** <u>Key-Note</u> **Sergey Sorokin** Recent advances in application of bi-orthogonality relations
- **10:20-10:50 Paolo Musolino** The functional analytic approach for degenerating boundary value problems
- **10:50-11:20 Durvudkhan Suragan** Inverse problems of identifying the time-dependent source coefficient for sub elliptic heat equations
- **11:20-11:40 David Wiedemann** Polyc onvexifcation of isotropic functions

Lunch 12:00-13:00 (TaMeDa)

Chair: Gennady Mishuris

- **13:00-13:40 <u>Key-Note</u> Alberto Salvadori** Fracture propagation as a standard dissipative process: application to hydraulic fractures in energy storage materials
- **13:40-14:10 Daniel Peck** Challenges in tracing the crack front of a hydraulic fracture in inhomogeneous media.
- **14:10-14:30 Carlo Peruzzo** Hydraulic fracture growth through layers of varying toughness

Coffee break 14:30-15:00

Chair: Qiang Li / Andrea Piccolroaz

- **15:00-15:20 Marco Amato** Elastic solids moving along frictionless constraints via configurational forces
- **15:20-15:40 Matteo Gaibotti** Effects of different loadings on bifurcation of a coated elastic disk
- **15:40-16:00 Ilias Psilakis** Assessment of fracture properties through Wedge Splitting Test and Inverse Analysis
- **16:00-16:20 Lorenzo Fiore** Development of Thermoplastic Constitutive Models for Refractory Ceramics in Wide Temperature Range
- **16:20-16:40 Domagoj Uremovic** Algorithm for adaptive insertion for anticipating crack path trajectory
- **16:40-17:00 Jovana Stojic** Computational implementation and validation of constitutive models for heat-resistant devices
- **17:00-17:20 Kaoutar Anrhour** Development of thermal shock protocol of experiment of carbonbased re-fractory materials
- **17:20-17:40 Shubhra Pande** (online) Transmission conditions across a thin thermoelastic interphase

Dinner 19:00 (Medina – town centre)

Friday 9 June

Chair: Alberto Salvadori

- **9:00-9:40 <u>Key-Note</u>: Qiang Li** Adhesion instability and edge effect in elastic contact: Numerical simulation using the FFT-assisted BEM
- **9:40-10:10 Emanuel Willert** A general approximate solution for the slightly non-axisymmetric normal contact problem of layered and graded elastic materials
- **10:10-10:40 Ivan Argatov** Homogenization of chemically heterogeneous adhesive contact — Asymptotic models
- **11:10-11:40 Gennaro Vitucci** Statistical mechanics informed continuum mechanics models for damage of biopolymers

Closure 11:40-11:50

Lunch 12:00-13:00 (TaMeDa)

Visit to the National Library of Wales 14:00 - … Evening programme: trip to the promenade - constitutional Hill and a restaurant (pubs)