Monday

	Room Green 2	Room Green 3	Room Yellow 1	Room Red 1	Room Red 2
9:30am - 10:30am	Room Green 1 Olof Runborg "Solving Helmholtz Equation Using the Temporal Wave Equation" *Chair : Marlis Hochbruck*				
10:30am - 11:00am	Coffee Break				
11:00am - 12:30pm	Trefftz methods	Frequency-domain BEM	Inverse problems	DD methods	Numerical methods for time-harmonic problems
12:30pm - 2:15pm	Lunch				
2:15pm - 3:15pm	Room Green 1 Nilima Nigam "Elasticity, skeletal muscle, and waves?" *Chair : Peter Monk*				
3:30pm - 4:30pm	Analysis for time-domain problems	Frequency-domain BEM	Inverse problems	Asymptotic methods in the time domain	Periodic waveguides
4:30pm - 5:00pm	Coffee Break				
5:00pm - 6:30pm	Time-domain methods for time-harmonic problems	Frequency-domain BEM	Modelling in electromagnetism	Wave propagation in random media	Numerical methods for time-domain problems

Room Green 2 (11:00am - 12:30pm) - Trefftz Methods
Chair : Andrea Moiola

11:00am - 11:30am	<u>Lise-Marie Imbert-Gerard,</u> Guillaume Sylvand *"Three types of quasi-Trefftz functions for the 3D convected Helmholtz equation: construction and theoretical approximation properties"*
11:30am - 12:00pm	<u>Margot Sirdey,</u> Sébastien Tordeux, Sébastien Pernet *"Iterative Trefftz Method For Three-dimensional Electromagnetic Waves Simulation"*
12:00pm - 12:30pm	<u>Emile Parolin,</u> Daan Huybrechs, Andrea Moiola *"Stable approximation of Helmholtz solutions with evanescent plane waves"*

Room Green 3 (11:00am - 12:30pm) - Frequency-domain BEM
Chair : Oscar Bruno

11:00am - 11:30am	<u>Simon Chandler-Wilde,</u> Antonio Caetano, Andrew Gibbs, David Hewett, Andrea Moiola *"A Hausdorff-measure boundary element method for scattering by fractal screens I: Numerical Analysis"*
11:30am - 12:00pm	<u>Andrew Gibbs,</u> Andrea Moiola, David Hewett *"A Hausdorff-Measure Boundary Element Method for Scattering by Fractal Screens II: Numerical Quadrature"*
12:00pm - 12:30pm	<u>Francesco Florian,</u> Ralf Hiptmair, Stefan Sauter *"A new theory for acoustic transmission problems with variable coefficients modeled as stable integral equations"*

Room Yellow 1 (11:00am - 12:30pm) - Inverse problems
Chair : Philippe Moireau

11:00am - 11:30am	<u>Cristóbal Villalobos Guillén,</u> Laurent Baratchart, Houssem Haddar *"Inverse problem for the Helmholtz equation and singular sources in the divergence form"*
11:30am - 12:00pm	<u>Anthony Gerber-Roth,</u> Alexandre Munnier, Karim Ramdani *"A reconstruction method for the inverse gravimetric problem"*
12:00pm - 12:30pm	<u>Masimba Nemaire,</u> Paul Asensio, Jean-Michel Badier, Juliette Leblond, Jean-Paul Marmorat *"A layer potential approach to functional and clinical brain imaging"*

Room Red 1 (11:00am - 12:30pm) - Domain decomposition methods
Chair : Toufic Abboud

11:00am - 11:30am	<u>Bruno Després,</u> Anouk Nicolopoulos, Bertrand Thierry *"On corner matrices for high order DDMs"*
11:30am - 12:00pm	<u>Victor Dominguez,</u> Mahadevan Ganesh, Stuart C. Hawkins *"Advances in overlapping-domain framework for wave propagation in heterogeneous and unbounded regions"*
12:00pm - 12:30pm	<u>Jose Pablo Lucero Lorca,</u> Adrianna Gillman *"A comparison between Hierarchical Poincaré-Steklov approaches for the 3D Helmholtz equation with variable coefficients"*

Room Red 2 (11:00am - 12:30pm) - Numerical methods for time-harmonic problems
Chair : David Hewett

11:00am - 11:30am	Christoph Erath, Lorenzo Mascotto, Markus Melenk, Ilaria Perugia, <u>Alexander Rieder</u> *"dGFEM-BEM mortar coupling for the Helmholtz problem in three dimensions"*
11:30am - 12:00pm	<u>Francesca Bonizzoni,</u> Davide Pradovera, Michele Ruggeri *"Rational-based MOR methods for Helmholtz frequency response problems with adaptive nite element snapshots"*
12:00pm - 12:30pm	<u>Stefan Sauter,</u> Maximilian Bernkopf, Céline Torres, Alexander Veit *"Solvability of Discrete Helmholtz Equations"*

Room Green 2 (3:30pm - 4:30pm) - Analysis for time-domain problems
Chair : Daniel Appelö

3:30pm - 4:00pm	<u>Thomas G. Anderson</u>, Oscar P. Bruno *"Decay Theory and Numerical Analysis for Hybrid Frequency/Time Methods in Long-Time Transient Wave Scattering"*
4:00pm - 4:30pm	<u>Alejandro Rosas</u>, Patrick Joly, Maxence Cassier *"Long time behaviour for electromagnetic waves in dissipative Lorentz media"*

Room Green 3 (3:30pm - 4:30pm)- Frequency domain BEM
Chair : Frédérique Le Louër

3:30pm - 4:00pm	<u>Paul Escapil-Inchauspé</u>, Carlos Jerez-Hanckes, *"Bi-Parametric Operator Preconditioning and Applications"*
4:00pm - 4:30pm	<u>Ignacia Fierro-Piccardo</u>, Timo Betcke *"An OSRC Preconditioner for the EFIE"*

Room Yellow 1 (3:30pm - 4:30pm) - Inverse problems
Chair : Martin Berggren

3:30pm - 4:00pm	Youngsoo Baek, <u>Wilkins Aquino,</u> Sayan Mukherjee *"Probabilistic Wave Inversion Using Gibbs Posteriors: Application in Ultrasound Vibrometry"*
4:00pm - 4:30pm	<u>Nanda Kishore Bellam Muralidhar,</u> Natalie Rauter, Andrey Mikhaylenko, Rolf Lammering, Dirk A. Lorenz *"Damage Identification in Fiber Metal Laminates with Guided Ultrasonic Wave using Bayesian Inference and Model Order Reduction"*

Room Red 1 (3:30pm - 4:30pm) - Asymptotic methods in the time domain
Chair : Marc Bonnet

3:30pm - 4:00pm	<u>Pierre Millien,</u> Lorenzo Baldassari, Alice Vanel *"Modal approximation for plasmonic resonators in the time domain"*
4:00pm - 4:30pm	<u>Maryna Kachanovska</u> *"Asymptotic models for time-domain scattering by small particless"*

Room Red 2 (3:30pm - 4:30pm) - Periodic waveguides
Chair : Bérangère Delourme

3:30pm - 4:00pm	<u>Andreas Kirsch,</u> Guanghui Hu, *"Radiation Conditions for Periodic Waveguides"*
4:00pm - 4:30pm	<u>Ben Schweizer</u> *"Energy method approach to existence results for the Helmholtz equation in periodic wave-guides."*

Room Green 2 (5:00pm - 6:30pm) - Time-domain methods for time-harmonic problems
Chair : Sébastien Impériale

5:00pm - 5:30pm	<u>Daniel Appelö</u>, Zhichao Peng *"EM-WaveHoltz: A time-domain frequency-domain solver for Maxwell's equations"*
5:30pm - 6:00pm	<u>Théophile Chaumont-Frelet</u>, Marcus J. Grote, Jet H. Tang, Stéphane Lanteri *"A controllability method for Maxwell's equations"*
6:00pm - 6:30pm	<u>Chris Stolk</u> *"A time-domain preconditioner for the Helmholtz equation: Analysis and performance on GPUs"*

Room Green 3 (5:00pm - 6:30pm) - Frequency-domain BEM
Chair : Catalin Turc

5:00pm - 5:30pm	<u>Laura Bagur</u>, Stéphanie Chaillat, Jean-François Semblat, Ioannis Stefanou *"Fast boundary element method for fault mechanics and earthquake control"*
5:30pm - 6:00pm	<u>Camille Carvalho</u>, Arnold Kim, Zoïs Moitier *"Quadrature by Parity Asymptotic eXpansions (QPAX) for light scattering by high aspect ratio plasmonic particle"*
6:00pm - 6:30pm	Rodrigo Arrieta, Luiz Faria, <u>Carlos Perez Arancibia</u>, Catalin Turc *"A High-order Density-Interpolation-Based Nyström Method for Three-Dimensional Electromagnetic Boundary Integral Equations"*

Room Yellow 1 ((5:00pm - 6:30pm) - Modelling in electromagnetism
Chair : Tilo Arens

5:00pm - 5:30pm	<u>Edouard Demaldent,</u> Marc Bonnet *"Eddy-current asymptotics of the Maxwell PMCHWT formulation: the multi-body case"*
5:30pm - 6:00pm	<u>Marvin Knöller</u> *"Maximizing the electromagnetic chirality for metallic nanowires in the visible spectrum"*
6:00pm - 6:30pm	<u>Samuel Gaucher</u>, Christophe Guiffaut, Alain Reineix, Olivier Cessenat *"Angle-dependent SIBC model of metamaterial in FDTD method"*

Room Red 1 (5:00pm - 6:30pm) - Wave propagation in random media
Chair : Artur Gower

5:00pm - 5:30pm	<u>Filippo Stellin</u>, Marcel Filoche, Frederic Dias *"Localization landscape for interacting Bose gases in one-dimensional speckle potentials"*
5:30pm - 6:00pm	<u>Aristeidis Karnezis</u>, Artur L. Gower *"Complex Effective Wavenumbers of Isotropic Particulate Materials"*
6:00pm - 6:30pm	<u>Quentin Goepfert</u>, Josselin Garnier, Laure Giovangigli, Pierre Milllien *"Speckle statistics in stochastic homogenization regime"*

Room Red 2 (5:00pm - 6:30pm) - Numerical methods for time-domain problems
Chair : Stefan Sauter

5:00pm - 5:30pm	<u>Sergio Gomez,</u> Andrea Moiola *"A space–time Trefftz discontinuous Galerkin method for the linear Schrödinger equation"*
5:30pm - 6:00pm	<u>Spencer Lee</u>, Daniel Appelö *"Implicit Filon Methods for Highly Oscillating Problems and Controlled Qubits"*
6:00pm - 6:30pm	<u>Gustav Eriksson</u>, Jonatan Werpers, David Niemelä, Niklas Wik, Valter Zethrin, Ken Mattsson *"Stable finite differences for the piecewise homogeneous dynamic beam equation"*

Tuesday

	Room Green 2	Room Green 3	Room Yellow 1	Room Red 1	Room Red 2
9:00am - 10:00am	Room Green 1 David Krejčiřík "The virial theorem and the method of multipliers in spectral theory" *Chair : Anne-Sophie Bonnet-Ben Dhia*				
10:00am - 10:30am	Coffee Break				
10:30am - 12:30pm	Waveguides	MS 'Wave propagation in ab initio molecular simulation	PMLs in time domain	MS 'New trends in nonlinear acoustics'	Numerical methods for time-domain problems
12:30pm - 2:15pm	Lunch				
2:15pm - 3:15pm	Room Green 1 Biondo Biondi "Robust seismic imaging by full-waveform inversion with model time extension" *Chair : Bojan Guzina*				
3:30pm - 4:30pm	Numerical methods for complex media	Analysis for time-domain problems	Time-domain BEM	MS 'New trends in nonlinear acoustics'	Space-time finite elements
4:30pm - 5:00pm	Coffee Break				
5:00pm - 6:30pm	High-frequency analysis	Homogenization	Inverse problems	MS 'New trends in nonlinear acoustics'	Waves in Fluids

Room Green 2 (10:30am - 12:30pm) - Waveguides
Chair : Andreas Kirsch

10:30am - 11:00am	<u>Tom White</u>, Raphael Assier, William Parnell *"Sound Propagation in Slowly-Varying Lined Ducts"*
11:00am - 11:30am	<u>Laurent Bourgeois</u>, Sonia Fliss, Jean-François Fritsch, Christophe Hazard, Arnaud Recoquillay *"Scattering in a partially open waveguide: the forward problem"*
11:30am - 12:00pm	<u>Jean-François Fritsch</u>, Laurent Bourgeois, Arnaud Recoquillay *"Scattering in a partially open waveguide: the inverse problem"*
12:00pm - 12:30pm	<u>Angèle Niclas</u>, Éric Bonnetier, Laurent Seppecher, Grégory Vial *"High sensibility imaging of defects in elastic waveguides using near resonance frequencies"*

Room Green 3 (10:30am - 12:30pm) - MS 'Wave propagation in ab initio molecular simulation'
Chair : Antoine Levitt

10:30am - 11:00am	<u>Mi-Song Dupuy</u>, Antoine Levitt *"Finite-size effects in response functions of molecular systems"*
11:00am - 11:30am	<u>Loïc Joubert-Doriol</u> *"Quantum dynamics beyond the Born-Oppenheimer approximation in molecular systems"*
11:30am - 12:00pm	Matthew Colbrook, <u>Andrew Horning</u>, Kyle Thicke, Alex Watson *"Computing Spectral Properties of Topological Insulators with Disorder"*
12:00pm - 12:30pm	<u>Eloïse Letournel</u>, Antoine Levitt, Luigi Genovese, Ivan Duchemin, Simon Ruget *"Computation of resonances in locally perturbed periodic quantum systems"*

Room Yellow 1 (10:30am - 12:30pm) - PMLs in time domain
Chair : Martin Halla

10:30am - 11:00am	Hélène Barucq, Henri Calandra, Julien Diaz, <u>Vinduja Vasanthan</u> *"On the construction of Shape Functions for Spacetime Trefftz-DG Formulations of Wave Problems with Perfectly Matched Layers"*
11:00am - 11:30am	<u>Jichun Li</u> *"Analysis and FDTD simulation of a perfectly matched layer for the Drude metamaterial"*
11:30am - 12:00pm	Eliane Bécache, Maryna Kachanovska, <u>Markus Wess</u> *"Stability and convergence of time-domain perfectly matched layers in dispersive waveguides"*
12:00pm - 12:30pm	<u>Theau Cousin</u>, Christian Gout, Antoine Tonnoir, Cyrille Fauchard *"Perfectly Matched Layers for second order Maxwell's equations in time domain"*

Room Red 1 (10:30am - 12:30pm) - MS 'New trends in nonlinear acoustics and related phenomena'
Chair : Barbara Kaltenbacher

10:30am - 11:00am	<u>Anna Rozanova-Pierrat</u>, Michael Hinz, Adrien Dekkers, Alexander Teplyaev *"Well-posedness and shape optimization for the Westervelt Robin boundary problem on domains with non-Lipschitz boundaries"*
11:00am - 11:30am	Harald Garcke, Sourav Mitra, <u>Vanja Nikolic</u> *"A phase-field approach to shape and topology optimization of nonlinear acoustic waves"*
11:30am - 12:00pm	<u>Mostafa Meliani</u>, Vanja Nikolić *"Analysis of shape optimization problems for the Kuznetsov equation"*
12:00pm - 12:30pm	<u>Marcelo Bongarti</u>, Irena Lasiecka *"Boundary stabilization of critical nonlinear JMGT equation with undissipated Neumann boundary"*

Room Red 2 (10:30am - 12:30pm) - Numerical methods for time-domain problems
Chair : Théophile Chaumont-Frélet

10:30am - 11:00am	<u>Marlis Hochbruck</u>, Jonas Köhler, Pratik Kumbhar *"Locally Implicit Preconditioning for Maxwell equations on a locally refined spatial grid"*
11:00am - 11:30am	<u>Akram Beni Hamad</u>, Sébastien Impériale, Patrick Joly *"Efficient numerical method for time domain electromagnetic wave propagation in thin co-axial cables."*
11:30am - 12:00pm	<u>Yann-Meing Law</u>, Daniel Appelö *"The Hermite-Taylor Correction Function Method for Maxwell's Equations"*
12:00pm - 12:30pm	Lise-Marie Imbert-Gérard, <u>Andrea Moiola</u>, Paul Stocker *"A space-time quasi-Trefftz DG method for the wave equation with smooth coefficients"*

Room Green 2 (3:30pm - 4:30pm) - Numerical methods for complex media
Chair : Alexander Rieder

3:30pm - 4:00pm	Martin Halla, Christoph Lehrenfeld, Paul Stocker *"Numerical treatment of the vectorial equations of stellar oscillations"*
4:00pm - 4:30pm	Benjamin Latham, Arnold Kim, Camille Carvalho *"Capturing plasmonic behaviors in light scattering by spheres using finite element methods and asymptotic quadrature"*

Room Green 3 (3:30pm - 4:30pm)- Analysis for time-domain problems
Chair : Maxence Cassier

3:30pm - 4:00pm	Anton Arnold, Sjoerd Geevers, Ilaria Perugia, Dmitry Ponomarev *"Revisiting the limiting amplitude principle for the wave equation with variable coefficients"*
4:00pm - 4:30pm	Selina Burkhard, Benjamin Dörich, Marlis Hochbruck *"Gaussian wave packets for the magnetic Schrödinger equation"*

Room Yellow 1 (3:30pm - 4:30pm) - Time-domain BEM
Chair : Silvia Falletta

3:30pm - 4:00pm	Alessandra Aimi, Luca Desiderio, Giulia Di Credico, Chiara Guardasoni *"Recent Advances in Elastodynamics by Time-Domain Energetic Boundary Element Method"*
4:00pm - 4:30pm	Anita Haider, Martin Schanz *"Experiences with the 3D-ACA in a CQM based Time Domain Boundary Element Method"*

Room Red 1 (3:30pm - 4:30pm) - MS 'New trends in nonlinear acoustics and related phenomena'
Chair : Barbara Kaltenbacher

3:30pm - 4:00pm	Reinhard Racke, Yuxi Hu, Na Wang *"Formation of singularities for relaxed compressible Navier-Stokes equations"*
4:00pm - 4:30pm	Markus Scholle, Philip Gaskell, Sara Ismail-Sutton *"Obtaining nonlinear acoustic models from non-conventional variational principles in fluid mechanics"*

Room Red 2 (3:30pm - 4:30pm) - Space-time finite elements
Chair : Eliane Bécache

3:30pm - 4:00pm	Kieran Quaine, Heiko Gimperlein *"Enriched Space-Time Finite Element Methods for the Wave Equation"*
4:00pm - 4:30pm	Paolo Bignardi, Andrea Moiola *"A space-time continuous and coercive variational formulation for the wave equation"*

Room Green 2 (5:00pm - 6:30pm) - High-frequency analysis
Chair : Victor Dominguez

5:00pm - 5:30pm	Oliver Phillips, Stephen Langdon, Simon Chandler-Wilde *"An iterative hybrid numerical-asymptotic boundary element method for high-frequency scattering by multiple screens"*
5:30pm - 6:00pm	Anne-Sophie Bonnet-Ben Dhia, Amond Allouko, Vahan Baronian, Sonia Fliss *"A high-frequency approach for the acceleration of the Half-Space Matching method"*
6:00pm - 6:30pm	David Hewett, Valery Smyshlyaev *"The inflection point problem - from modal to scattering behaviour"*

Room Green 3 (5:00pm - 6:30pm) - Homogenization
Chair : Jean-François Mercier

5:00pm - 5:30pm	Shiza Naqvi, Lorna Ayton *"Homogenisation of perforated plates"*
5:30pm - 6:00pm	Rémi Cornaggia, Bruno Lombard *"Homogenization for transient waves in 1D periodic media: dispersion, interfaces and point sources"*
6:00pm - 6:30pm	Amit Rotem, Daniel Appelö, Olof Runborg *"The WaveHoltz Heterogeneous Multiscale Method for the Helmholtz Equation"*

Room Yellow 1 ((5:00pm - 6:30pm) - Inverse problems
Chair : Laurent Bourgeois

5:00pm - 5:30pm	Frédérique Le Louër, Olha Ivanyshyn Yaman *"Modeling and analysis of an inverse boundary value problem in a two dimensional viscoelastic medium"*
5:30pm - 6:00pm	Tilo Arens, Felix Hagemann, Frank Hettlich *"Domain Derivatives in Electromagnetism and Optimal Design of Chiral Objects"*
6:00pm - 6:30pm	Paul Asensio, Laurent Baratchart, Juliette Leblond, Martine Olivi, Fabien Seyfert *"Surface identification through back-scattering of an electromagnetic planar wave, by rational approximation"*

Room Red 1 (5:00pm - 6:30pm) - MS 'New trends in nonlinear acoustics and related phenomena'
Chair : Barbara Kaltenbacher

5:00pm - 5:30pm	Katherine Baker, Lehel Banjai, Mariya Ptashnyk *"A fast time-stepping method for the Westervelt equation with time-fractional damping"*
5:30pm - 6:00pm	Teresa Rauscher *"Modeling and simulation of nonlinear wave propagation in ultrasound imaging"*

Room Red 2 (5:00pm - 6:30pm) - Waves in Fluids
Chair : Manfred Kaltenbacher

5:00pm - 5:30pm	Juliette Dubois, Sébastien Impériale, Jacques Sainte-Marie *"Propagation of acoustic and gravity waves in the ocean: a new derivation for a general model."*
5:30pm - 6:00pm	Sébastien Boyaval *"Symmetric-hyperbolic conservation laws modelling viscoelastic flows"*
6:00pm - 6:30pm	Ilyes Moufid, Denis Matignon, Rémi Roncen, Estelle Piot *"Stability analysis of the JCAPL equivalent fluid model equations for porous media"*

Wednesday

	Room Green 2	Room Green 3	Room Yellow 1	Room Red 1	Room Red 2
8:30am - 9:30am	Room Green 1 — Marion Darbas "Fast solvers for time-harmonic high-frequency elastic wave propagation problems" — Chair : Simon Chandler-Wilde				
9:30am - 10:00am	Coffee Break				
10:00am - 12:00pm	Modelling in waveguides and beyond	Integral equations: analysis and applications	Homogenization	Spectral theory	High-order methods for time-domain problems
12:00pm - ... pm	Lunch and social events				

Room Green 2 (10:00am - 12:00pm) - Modelling in waveguides and beyond
Chair : Arnaud Recoquillay

10:00am - 10:30am	<u>Paul Martin</u>, Alex Skvortsov *"Scattering by a Body in a Pipe"*
10:30am - 11:00am	<u>Martin Berggren</u>, Abbas Mousavi, Eddie Wadbro *"Waveguide acoustic black holes: non-helpful and helpful damping mechanisms"*
11:00am - 11:30am	<u>Alexis Thibault</u>, Juliette Chabassier, Henri Boutin, Thomas Hélie *"Thermoviscous acoustic propagation in thin rough tubes"*
11:30am - 12:00pm	<u>Ilyes Moufid</u>, Denis Matignon, Rémi Roncen, Estelle Piot *"Multipole-model approximation of the equivalent fluid model equations for porous media in the time domain"*

Room Green 3 (10:00am - 12:00pm) - Integral equations: analysis and applications
Chair : Carlos Perez-Arancibia

10:00am - 10:30am	<u>Oscar Bruno</u> *"Efficient numerical solvers for frequency- and time-domain electromagnetic simulation, optimization and design"*
10:30am - 11:00am	<u>Elsie Cortes</u>, Camille Carvalho, Chrysoula Tsogka *"Boundary Integral Equation Methods for Optical Cloaking Models"*
11:00am - 11:30am	<u>Ignacio Labarca</u>, Ralf Hiptmair *"Coupled Single-Trace Formulations with Volume Integral Operators for Acoustic Transmission Problems"*
11:30am - 12:00pm	<u>Joshua Bannister</u>, Andrew Gibbs, David Hewett *"Volume integral equations on fractal domains and the Koch snowlake transmission problem"*

Room Yellow 1 (10:00am - 12:00pm) - Homogenization
Chair : Ben Schweizer

10:00am - 10:30am	<u>Laure Giovangigli</u>, Sonia Fliss, Amandine Boucart *"Homogenization of a thin layer of randomly distributed nano-particles : effective model and error estimates"*
10:30am - 11:00am	<u>Eduard Rohan,</u> Vladimír Lukeš *"Modelling acoustic metasurfaces using homogenization of fluid-structure interaction on strongly heterogeneous perforated plates in thin layers"*
11:00am - 11:30am	<u>Cédric Bellis</u>, Bruno Lombard, Marie Touboul, Raphael Assier *"Effective dynamics for low-amplitude transient elastic waves in a 1D periodic array of non-linear interfaces"*
11:30am - 12:00pm	<u>Marie Touboul</u>, Raphael Assier, Bruno Lombard, Cédric Bellis, Philip Cotterill, David Nigro, William Parnell *"High-frequency homogenisation in periodic media with imperfect interfaces and elastodynamic co-dipole metaclusters"*

Room Red 1 (10:00am - 12:00pm) - Spectral theory
Chair : Konstantin Pankrashkin

10:00am - 10:30am	<u>Lucas Chesnel</u>, Jérémy Heleine, Sergei A. Nazarov *"Design of a mode converter using thin resonant ligaments"*
10:30am - 11:00am	<u>Matias Ruiz,</u> Anne-Sophie Bonnet-Ben Dhia, Christophe Hazard *"Spectral analysis of generalized normal modes"*
11:00am - 11:30am	<u>Philippe Briet</u>, David Krejcirík, Hamza Abdou Soimadou *"Sheared nanoribbons"*
11:30am - 12:00pm	<u>Kiyan Naderi</u>, Konstantin Pankrashkin *"A trace theorem on an infinite b-adic tree"*

Room Red 2 (10:00am - 12:00pm) - High order methods for time-domain problems
Chair : Julien Diaz

10:00am - 10:30am	<u>Valentin Ritzenthaler</u>, Pierre Cantin, Xavier Ferrières, Sébastien Pernet, Puigt Guillaume *"Spectral Difference method On Structured-Grids for Maxwell's Equations in Time Domain."*
10:30am - 11:00am	Tiphaine Delaunay, <u>Sébastien Imperiale</u>, Philippe Moireau *"Stabilization of the high-order discretized wave equation for data assimilation problems"*
11:00am - 11:30am	<u>Sara Fraschini</u>, Andrea Moiola, Giancarlo Sangalli *"Stability of space–time isogeometric methods for wave propagation problems"*
11:30am - 12:00pm	<u>Ivy Weber,</u> Gunilla Kreiss *"A comparison of Hermite and Lagrange finite element methods for the wave equation"*

Thursday

	Room Green 2	Room Green 3	Room Yellow 1	Room Red 1	Room Red 2
9:00am - 10:00am	Room Green 1 Markus Melenk "Wavenumber-explicit hp-FEM for Helmholtz problems in piecewise smooth media" *Chair : Lehel Banjai*				
10:00am - 10:30am	Coffee Break				
10:30am - 12:30pm	Periodic and quasi-periodic media	Frequency-domain BEM	Inverse problems	Numerical methods for spectral problems	Numerical methods for time-domain problems
12:30pm - 1:45pm	Lunch				
1:45pm - 2:45pm	Room Green 1 Barbara Kaltenbacher "Mathematics of Nonlinear Acoustics: Modeling - Analysis - Numerics - Inverse Problems" *Chair : Thorsten Hohage*				
3:00pm - 4:00pm	Time-harmonic multiple scattering	Nonlinear problems	Inverse problems	Spectral theory	Artificial boundary conditions
4:00pm - 4:30pm	Coffee Break				
4:30pm - 6:00pm	Analysis for time-harmonic problems	Frequency-domain BEM	Inverse problems	Wave propagation in random media	Nonlinear problems

Room Green 2 (10:30am - 12:30pm) - Periodic and quasi-periodic media
Chair : Rémi Cornaggia

10:30am - 11:00am	<u>Pierre Amenoagbadji</u>, Sonia Fliss, Patrick Joly *"Wave propagation in unbounded quasiperiodic media, Part 1: the absorbing case"*
11:00am - 11:30am	<u>Patrick Joly</u>, Sonia Fliss, Pierre Amenoagbadji *"Wave propagation in unbounded quasiperiodic media, Part 2: the non-absorbing case"*
11:30am - 12:00pm	<u>Bojan Guzina,</u> Othman Oudghiri-Idrissi, Shixu Meng *"Asymptotic analysis of Berry phase governed by the scalar wave equation"*
12:00pm - 12:30pm	<u>Nasim Shafieeabyaneh</u>, Ruming Zhang *"Numerical solution for non-periodic scattering problem in the 3D periodic structure"*

Room Green 3 (10:30am - 12:30pm) - Frequency-domain BEM
Chair : Martin Schanz

10:30am - 11:00am	<u>Simon Dirckx</u>, Daan Huybrechs, Karl Meerbergen *"A data compact representation for frequency dependent BEM matrices"*
11:00am - 11:30am	Toufic Abboud, <u>Benoît Chaigne</u>, Marek Felšöci, Alexandre Piche, Guillaume Sylvand *"Numerical Modelisation of Interaction between Plasma Thruster Plume and Antennas on Small Satellites"*
11:30am - 12:00pm	<u>Igor Chollet</u>, Xavier Claeys, Pierre Fortin, Laura Grigori *"defmm : A FFT-based Kernel-independent Directional Fast Multipole Library for Arbitrary Particle Distributions at All Frequency Regimes"*
12:00pm - 12:30pm	<u>Christoph Bauinger</u>, Oscar P. Bruno *"Massively Parallelized Interpolated Factored Green Function Method"*

Room Yellow 1 (10:30am - 12:30pm) - Inverse problems
Chair : Karim Ramdani

10:30am - 11:00am	<u>Yannik G. Gleichmann</u>, Marcus J. Grote, Daniel H. Baffet *"Adaptive Spectral Decomposition for Time-Dependent Inverse Problems"*
11:00am - 11:30am	<u>Tyler Masthay</u>, Björn Engquist *"Optimal Transport for Elastic Seismic Source Inversion"*
11:30am - 12:00pm	<u>Tiphaine Delaunay,</u> Sébastien Impériale, Philippe Moireau *"Solving inverse source wave problem: from observability to observer design"*
12:00pm - 12:30pm	<u>Björn Müller,</u> Thorsten Hohage, Laurent Gizon, Damien Fournier *"Iterative helioseismic holography-Inversions for solar differential rotation"*

Room Red 1 (10:30am - 12:30pm) - Numerical methods for spectral problems
Chair : Markus Wess

10:30am - 11:00am	<u>Jean-René Poirier</u>, Ronan Perrussel *"Solution of a non-linear eigenvalue problem for Photonic Crystal Fiber applications"*
11:00am - 11:30am	<u>Augustin Leclerc,</u> Antoine Tonnoir, Hélène Barucq, Marc Duruflé, Christian Gout *"Modal computation for open waveguides"*
11:30am - 12:00pm	<u>Kersten Schmidt</u>, Philipp Jorkowski, Carla Schenker, Luka Grubišic, Rolf Schumann *"Adapted contour integration for nonlinear eigenvalue problems in wave-guide coupled resonators"*
12:00pm - 12:30pm	<u>Alexei Stepanenko</u>, Frank Rösler *"Computing eigenvalues of the Laplacian on rough domains"*

Room Red 2 (10:30am - 12:30pm) - Numerical methods for time-domain problems
Chair : Juliette Chabassier

10:30am - 11:00am	<u>Benjamin Dörich</u>, Jan Leibold, Bernhard Maier *"Maximum norm error bounds for the full discretization of non-autonomous wave equations"*
11:00am - 11:30am	<u>Vidar Stiernström</u>, Martin Almquist *"Order-preserving non-conforming grid interfaces for boundary-optimized summation-by-parts operators"*
11:30am - 12:00pm	<u>Guillaume Castera</u>, Juliette Chabassier *"Linearly implicit energy consistent time discretisation for nonlinear wave equations"*
12:00pm - 12:30pm	<u>Manfred Kaltenbacher</u>, Dominik Mayerhofer, Hamideh Hassanpour Guilvaiee, Florian Toth *"Non-conforming and moving grids for the simulation of waves in viscous fluids"*

Room Green 2 (3:00pm - 4:00pm) - Time-harmonic multiple scattering
Chair : Pierre Millien

3:00pm - 3:30pm	<u>Vianey Villamizar,</u> Tahsin Khajah, Jonathan Hale, Monu Jaiswal *"An Efficient Iterative High Order Numerical Method for Multiple Scattering"*
3:30pm - 4:00pm	<u>Cory McCullough,</u> Camille Carvalho, Arnold Kim *"Asymptotic analysis for sound-hard acoustic scattering by two closely-situated spheres"*

Room Green 3 (3:00pm - 4:00pm) - Nonlinear problems
Chair : Reinhard Racke

3:00pm - 3:30pm	<u>Mathias Ionescu-Tira,</u> Tomáš Dohnal, Marcus Waurick *"Analysis and Approximation of Electromagnetic Surface Waves in Nonlinear Dispersive Media"*
3:30pm - 4:00pm	<u>Geoffrey Beck,</u> David Lannes, Lisl Weynans *"Wave power farm made of many rigid floating structures in Boussinesq regime"*

Room Yellow 1 (3:00pm - 4:00pm) - Inverse problems
Chair : Juliette Leblond

3:00pm - 3:30pm	Mourad Bellassoued, Houssem Haddar, <u>Amal Labidi</u> *"Log-stability results for inverse coefficients problem associated with time harmonic magnetic Schrödinger operator"*
3:30pm - 4:00pm	<u>Kyle Wright,</u> Roummel Marcia, Boaz Ilan *"Numerical methods for a Schrodinger equation inverse eigenvalue problem"*

Room Red 1 (3:00pm - 4:00pm) - Spectral theory
Chair : Matias Ruiz

3:00pm - 3:30pm	Lucas Chesnel, <u>Jérémy Heleine,</u> Sergei Nazarov *"Acoustic passive cloaking using thin resonant ligaments"*
3:30pm - 4:00pm	<u>Jean Fornerod,</u> Hoai-Minh Nguyen *"The Weyl Law of transmission eigenvalues and the completeness of the generalized transmission eigenfunctions without the complementing conditions"*

Room Red 2 (3:00pm - 4:00pm) - Artificial boundary conditions
Chair : Kersten Schmidt

3:00pm - 3:30pm	<u>Nathan Rouxelin,</u> Hélène Barucq, Sébastien Tordeux *"Low-order Absorbing Boundary Conditions in HDG discretization of the convected Helmholtz equation"*
3:30pm - 4:00pm	<u>Luiz Faria,</u> Alexis Anne, Anne-Sophie Bonnet-Ben Dhia *"Solving the water-waves problem with Laplace's free-space Green's function"*

Room Green 2 (4:30pm - 6:00pm) - Analysis for time-harmonic problems
Chair : Lise-Marie Imbert-Gérard

4:30pm - 5:00pm	Rainer Mandel, <u>Zoïs Moitier</u>, Barbara Verfürth, *"Nonlinear Helmholtz equations with sign-changing diffusion coefficient"*
5:00pm - 5:30pm	Anne-Sophie Bonnet-Ben Dhia, Lucas Chesnel, <u>Mahran Rihani</u> *"3D scalar transmission problem in presence of a conical tip of negative material."*
5:30pm - 6:00pm	<u>Anne-Sophie Bonnet-Ben Dhia</u>, Lucas Chesnel, Mahran Rihani *"Maxwell's equations in presence of a tip of material with negative permittivity"*

Room Green 3 (4:30pm - 6:00pm)- Frequency-domain BEM
Chair : Alessandra Aimi

4:30pm - 5:00pm	<u>Carlos Jerez-Hanckes</u>, Jose Pinto, Tao Yin *"Exponentially Convergent Spectral Galerkin BEM for Elastic Wave Scattering of Cracks"*
5:00pm - 5:30pm	<u>Hadrien Montanelli</u>, Houssem Haddar, Matthieu Aussal *"Computing singular and near-singular integrals in high-order boundary elements"*
5:30pm - 6:00pm	<u>Catalin Turc,</u> Víctor Domínguez *"Robust boundary integral equations of Helmholtz decomposition formulations of elastic scattering problems"*

Room Yellow 1 (4:30pm - 6:00pm) - Inverse problems
Chair : Lucas Chesnel

4:30pm - 5:00pm	<u>Arnaud Recoquillay</u> *"On the use of phased array data for the Linear Sampling Method in an elastic waveguide"*
5:00pm - 5:30pm	Yosra Boukari, Houssem Haddar, <u>Nouha Jenhani</u> *"Identification of a local perturbation in unknown periodic layers"*
5:30pm - 6:00pm	Timo Lähivaara, <u>Peter Monk</u>, Virginia Selgas *"The Time Domain Linear Sampling Method for Maxwell's equations"*

Room Red 1 (4:30pm - 6:00pm) - Wave propagation in random media
Chair : Cedric Bellis

4:30pm - 5:00pm	<u>Jean-Philippe Banon,</u> Pierre Pelletier, Claude Weisbuch, Svitlana Mayboroda, Marcel Filoche *"Wigner-Weyl description of radiative processes in correlated disordered semiconductor alloys"*
5:00pm - 5:30pm	<u>Artur Gower</u>, Gerhard Kristensson, Stuart Hawkins *"Modelling and validating average waves in random particulate materials"*
5:30pm - 6:00pm	<u>Amandine Boucart</u>, Sonia Fliss, Laure Giovangigli, Bruno Stupfel *"Modeling scattering from a random thin coating: asymptotic model and numerical simulations"*

Room Red 2 (4:30pm - 6:00pm) - Nonlinear problems
Chair : Anna Rozanova-Pierrat

4:30pm - 5:00pm	<u>Eun-Hong Min,</u> Weon Cheol Koo *"Numerical Study on Spatial Evolution of Progressive Waves using Fully Nonlinear Numerical Wave Tank."*
5:00pm - 5:30pm	<u>Jagdeep Tamber,</u> Tranter Matt *"Scattering of an Ostrovsky Wave Packet in a Delaminated Waveguide"*
5:30pm - 6:00pm	<u>Nils Margenberg,</u> Franz Kärtner, Markus Bause *"Higher Order Variational Time Discretizations for Nonlinear Dispersive Wave Equations"*

Friday

	Room Green 2	Room Green 3	Room Yellow 1	Room Red 1	Room Red 2
9:00am - 11:00pm	High frequency analysis	Periodic and quasi-periodic media	PMLs in frequency domain	Coupling methods and their applications	Aeroacoustical Engineering
11:00am - 11:30am	Coffee Break				
11:30am - 12:30am	Room Green 1 Xavier Claeys "Generalized optimized Schwarz methods in arbitrary non-overlapping subdomain partitions" *Chair : Patrick Joly*				
12:30pm - 2:00pm	Lunch				

Room Green 2 (9:00am - 11:00am) - High-frequency analysis
Chair : Marc Lenoir

9:00am - 9:30am	
9:30am - 10:00am	Olivier Lafitte *"High frequency analysis of the Dirichlet to Neumann operator for the Helmholtz equation on a coated cylinder or elliptic cylinder"*
10:00am - 10:30am	Mauricio Londoño, Francisco Rodríguez-Cortés *"Oscillatory RBF for Helmholtz problems with large wavenumber"*
10:30am - 11:00am	Jeffrey Galkowski, Pierre Marchand, Euan Spence *"High-frequency estimates and error bounds on the h-BEM for the Helmholtz exterior Neumann problem"*

Room Green 3 (9:00am - 11:00am) - Periodic and quasi-periodic media
Chair : Vincent Pagneux

9:00am - 9:30am	Othman Oudghiri-Idrissi, Bojan B. Guzina *"Effective Wave Motion in Periodic Origami Structures"*
9:30am - 10:00am	Maxence Cassier, Michael I. Weinstein *"TE band structure for honeycomb media in a high contrast regime"*
10:00am - 10:30am	Bérangère Delourme, Sonia Fliss *"Dislocation model for hexagonal periodic graphs perturbed along the Zig Zag direction"*
10:30am - 11:00am	Harold Berjamin, Riccardo De Pascalis *"Acoustoelasticity of soft viscoelastic solids and phononic crystals"*

Room Yellow 1 (9:00am - 11:00am) - Perfectly matched layers in frequency domain
Chair : Lothar Nannen

9:00am - 9:30am	Eliane Bécache, Anne-Sophie Bonnet-Ben Dhia, Sonia Fliss, Antoine Tonnoir *"The Half-space Matching method and the Perfectly Matched Layers for scattering problem in anisotropic elastic media"*
9:30am - 10:00am	Martin Halla *"Radial complex scaling/PML for anisotropic scalar resonance problems"*
10:00am - 10:30am	Hadrien Bériot, Axel Modave *"A PML implementation for convex domains of general shape in time-harmonic acoustics"*
10:30am - 11:00am	Thorsten Hohage, Janosch Preuß, Christoph Lehrenfeld *"Learned Infinite Elements"*

Room Red 1 (9:00am - 11:00am) - Coupling methods and their applications
Chair : Bruno Desprès

9:00am - 9:30am	
9:30am - 10:00am	Alice Nassor, Marc Bonnet, Stéphanie Chaillat *"Transient, global-in-time, convergent iterative coupling of acoustic BEM and elastic FEM"*
10:00am - 10:30am	Luca Desiderio, Silvia Falletta, Matteo Ferrari, Letizia Scuderi *"One-equation coupling of Curvilinear Virtual Element and Boundary Element methods for the wave equation in unbounded domains"*
10:30am - 11:00am	Justine Labat, Agnès Pujols, Francis Collino *"Discontinuous Galerkin-based domain decomposition method for boundary integral equations in electromagnetism"*

Room Red 2 (9:00am - 11:00am) - Aeroacoustical Engineering
Chair : Guillaume Sylvand

9:00am - 9:30am	Alistair Hales, Lorna Ayton *"Reduction of Leading-Edge Noise by Tailored Turbulence Anisotropy"*
9:30am - 10:00am	Maëlys Ruello, Clément Rudel, Sébastien Pernet, Jean-Philippe Brazier *"One-Way methods for wave propagation in complex flows"*
10:00am - 10:30am	Felician Putz, Yi Zhang, Martin Oberlack *"Instability and over-reflection of acoustic waves in compressible boundary layer flows"*
10:30am - 11:00am	Linus Hägg, Martin Berggren *"Accounting for viscothermal boundary losses in time-domain acoustics"*