

Program of Conference on Mathematics of Wave Phenomena, Karlsruhe, February 14-18, 2022

Timezone CET (UTC+1)	Monday February 14th, 2022	Tuesday February 15th, 2022	Wednesday February 16th, 2022	Thursday February 17th, 2022	Friday February 18th, 2022	
	Welcome Session					
09:00-10:00	Perugia	Krieger	Poulton	López-Fernández	Haddar	
10:00-11:00	Pelinovsky	Oksanen	Spence	Break	Einkemmer	
11:00-12:00	Break	Break	Break	Contributed talks sessions CT15, CT16, CT17 and Minisymposia 4, 12, 17, 19, 22	Break	
12:00-13:00	Contributed talks sessions CT1, CT2 and Minisymposia 1, 2, 10, 14, 15, 21	Contributed talks sessions CT4, CT5 and Minisymposia 5, 7, 9, 13, 14, 15	Contributed talks sessions CT10, CT11 and Minisymposia 3, 7, 8, 11, 16, 18		Break	Gérard
13:00-14:00	Break	Break	Break	Break		
14:00-15:00						
15:00-16:00	Minisymposia 2, 10, 14, 15, 21	Contributed talks sessions CT6, CT7 and Minisymposia 5, 7, 8, 9, 13, 21	Contributed talks session CT12, CT13 and Minisymposia 3, 8, 11, 12, 16, 18		Minisymposia 4, 6, 11, 12, 17, 19, 20, 22	
16:00-16:30	Break	Break	Break	Break		
16:30-19:00	Contributed talks session CT3(3) and Minisymposia 1(4), 2(2), 9(3), 10(4), 14(3), 15(4), 21(4)	Contributed talks sessions CT8(4), CT9(3) and Minisymposia 5(4), 7(4), 8(4), 9(2), 13(4), 16(3)	Contributed talks session CT14(4) and Minisymposia 3(4), 4(4), 8(3), 11(3), 12(2), 16(3), 18(3)	Contributed talks session CT18(3) and Minisymposia 6(4), 12(3), 17(2), 19(2), 20(5), 22(3)		

In parentheses is the number of talks in late afternoon session.

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List of Minisymposia

- 1 [Wave Propagation and Imaging in Biomedical Ultrasound](#)
Organizers: Marta Betcke (London), Ben Cox (London), and Ashkan Javaherian (U College London)
- 2 [Advances in Computational Boundary Integral Equations for Electromagnetics](#)
Organizers: Timo Betcke (U College London), David Hewett (U College London), and Kristof Cools (Ghent U)
- 3 [Stochastic Nonlinear Wave and Schrödinger Equations and Applications](#)
Organizers: Zdzislaw Brzeźniak (U York)
- 4 [High Frequency Scattering and Wave Propagation: the Semiclassical/Numerical Analysis Interface](#)
Organizer: Simon Chandler-Wilde (U Reading) and Euan Spence (U Bath)
- 5 [Discretization Methods for Indefinite Wave Propagation Problems](#)
Organizers: Théophile Chaumont-Frelet (Inria Sophia-Antipolis) and Jens Markus Melenk (TU Wien)
- 6 [Advances in Inverse Design for Wave Propagation Problems](#)
Organizers: Rasmus E. Christiansen (TU Denmark), Ole Sigmund (TU Denmark), Owen Miller (Yale U), and Eddie Wadbro (Karlstad U)
- 7 [Nonlinear Maxwell Equations](#)
Organizers: Tomáš Dohnal (U Halle) and Giulio Romani (U Halle)
- 8 [Water Waves and Dispersive Equations](#)
Organizers: Mats Ehrnström (NTNU Trondheim) and Gabriele Brüll (KIT)
- 9 [Wave Propagation in Periodic Structures: Analysis and Numerics](#)
Organizers: Sonia Fliss (ENSTA Paris) and Ruming Zhang (KIT)
- 10 [Uncertainty Quantification for Waves](#)
Organizers: Martin Frank (KIT) and Christian Wieners (KIT)
- 11 [Numerical Approaches to Wave Propagation in Complex Media](#)
Organizers: Dietmar Gallistl (U Jena), Patrick Henning (U Bochum), and Barbara Verfürth (KIT)
- 12 [Wave Phenomena in Metamaterials and Metasurfaces](#)
Organizers: Fatima Goffi (KIT) and Carsten Rockstuhl (KIT)
- 13 [Monotonicity Methods in Shape Reconstruction](#)
Organizers: Roland Griesmaier (KIT) and Bastian von Harrach (U Frankfurt/Main)
- 14 [Mathematical Aspects of Wave Propagation in Plasmonic Structures](#)
Organizer: Martin Halla (MPI Göttingen) and Lucas Chesnel (EP Palaiseau)
- 15 [The Stability of Nonlinear Waves](#)
Organizers: Mat Johnson (U Kansas) and Björn de Rijk (KIT)
- 16 [Geometric Methods in Spectral Theory of Traveling Waves](#)
Organizers: Chris Jones (U North Carolina) and Yuri Latushkin (U Missouri)
- 17 [Complete Integrability, Riemann–Hilbert Problems and Nonlinear Waves](#)
Organizers: Christian Klein (U Bourgogne) and Bing-Ying Lu (U Bremen)
- 18 [Modelling and Inversion of Seismic Waves on the Global and Regional Scale](#)
Organizers: Volker Michel (U Siegen), Naomi Schneider (U Siegen), and Karin Sigloch (Geoazur, Sophia Antipolis)
- 19 [Analysis and Numerics of Nonlinear Acoustic Waves in Relaxing Media](#)
Organizers: Vanja Nikolić (Radboud U) and Belkacem Said-Houari (U Sharjah)
- 20 [Microlocal Concepts for Imaging by Waves](#)
Organizers: Todd Quinto (Tufts U) and Andreas Rieder (KIT)
- 21 [Blow-up and Global Dynamics in Nonlinear Dispersive PDEs](#)
Organizers: Sebastian Herr (Bielefeld U) and Birgit Schörkhuber (Innsbruck U)
- 22 [Stability and Instability in Fluids](#)
Organizers: Christian Zillinger (KIT)

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List of Contributed Talks sessions

CT1 Jahnke, Carle, Schrammer

CT2 Melenk, Furuya, Kaya

CT3 Dörich, Leibold, Zerulla

CT4 Chandler-Wilde, Philipps, Ferrari

CT5 Duruk-Mutlubas, Pasquali, He

CT6 B, Yadav

CT7 Phan, Moriggl

CT8 Düll, Heß, Taraca, Klumpp

CT9 Fernandez-Corbaton, Lamprianidis, Vavilin

CT10 Fliss, Fritsch, Heleine

CT11 Moitier, Henninger, Kielwein

CT12 Ji, Yao

CT13 Bonnet-Ben Dhia, Carvalho

CT14 Rapun, Ivanyshyn Yaman, Le Louer, Liu

CT15 Hohage, Stocker, Müller

CT16 Lavrentiev, Feppon, Olkhovskiy

CT17 Oruc, Döding, Schiavone

CT18 Amenoagbadji, Beni Hamad, Gleichmann

Program of Conference on Mathematics of Wave Phenomena on Tuesday, February 15, 2022

Timezone CET (UTC+1)	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7	Session 8
09:00-10:00	Plenary Talk • Joachim Krieger • <i>Challenges in the field of dispersive PDE</i>							
10:00-11:00	Plenary Talk • Lauri Oksanen • <i>Lorentzian Calderón problem under curvature bounds</i>							
11:00-11:30	Break							
11:30-13:00	Minisymposium 5	Minisymposium 7	Contributed talks session CT4	Minisymposium 9	Minisymposium 13	Minisymposium 14	Minisymposium 15	Contributed talks session CT5
13:00-15:00	Break							
15:00-16:00	Minisymposium 5	Minisymposium 7	Minisymposium 8	Minisymposium 9	Minisymposium 13	Contributed talks session CT6	Contributed talks session CT7	Minisymposium 21
16:00-16:30	Break							
16:30-18:30	Minisymposium 5	Minisymposium 7	Minisymposium 8	Minisymposium 9	Minisymposium 13	Contributed Talks CT8	Minisymposium 16	Contributed talks session CT9

Program of Conference on Mathematics of Wave Phenomena on Wednesday, February 16, 2022

Timezone CET (UTC+1)	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7	Session 8
09:00-10:00	Plenary Talk • Christopher Poulton • <i>Modelling sound-light interactions on the nanoscale</i>							
10:00-11:00	Plenary Talk • Euan Spence • <i>We need to talk about the impedance boundary condition</i>							
11:00-11:30	Break							
11:30-13:00	Minisymposium 3	Contributed talks session CT10	Minisymposium 7	Minisymposium 8	Minisymposium 11	Contributed talks session CT11	Minisymposium 16	Minisymposium 18
13:00-15:00	Break							
15:00-16:00	Minisymposium 3	Contributed talks session CT12	Contributed talks session CT13	Minisymposium 8	Minisymposium 11	Minisymposium 12	Minisymposium 16	Minisymposium 18
16:00-16:30	Break							
16:30-18:30	Minisymposium 3	Minisymposium 4	Contributed talks session CT14	Minisymposium 8	Minisymposium 11	Minisymposium 12	Minisymposium 16	Minisymposium 18

Program of Conference on Mathematics of Wave Phenomena on Thursday, February 17, 2022

Timezone CET (UTC+1)	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7	Session 8
09:00-10:00	Plenary Talk • María López-Fernández • <i>Directional H2-matrices for lossy Helmholtz problems</i>							
10:00-10:30	Break							
10:30-12:00	Minisymposium 4	Contributed talks session CT15	Contributed talks session CT16	Minisymposium 12	Minisymposium 17	Minisymposium 19	Contributed talks session CT17	Minisymposium 22
12:00-14:00	Break							
14:00-15:00	Plenary Talk • Alexandru Ionescu • <i>On the nonlinear stability of shear flows and vortices</i>							
15:00-16:00	Minisymposium 4	Minisymposium 6	Minisymposium 11	Minisymposium 12	Minisymposium 17	Minisymposium 19	Minisymposium 20	Minisymposium 22
16:00-16:30	Break							
16:30-19:00	Contributed talks session CT18	Minisymposium 6		Minisymposium 12	Minisymposium 17	Minisymposium 19	Minisymposium 20	Minisymposium 22

Program of Conference on Mathematics of Wave Phenomena on Friday, February 18, 2022

Timezone CET (UTC+1)	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7	Session 8
09:00-10:00	Plenary Talk • Housseem Haddar • <i>Interplay between imaging algorithms and the analysis of interior transmission problems</i>							
10:00-11:00	Plenary Talk • Lukas Einkemmer • <i>Dynamical low-rank approximation for the treatment of kinetic Alfvén waves</i>							
11:00-11:30	Break							
11:30-12:30	Plenary Talk • Patrick Gérard • <i>The Benjamin–Ono equation with periodic boundary conditions</i>							