Workshop 1 of the Thematic Programme on
“Nonlinear Waves and Relativity”
May 13 - 17, 2024
organized by
Roland Donninger (U of Vienna), David Fajman (U of Vienna),
Birgit Schörkhuber (U of Innsbruck)

• Monday, May 13th, 2024
09:00 – 09:45 Registration
09:45 – 10:00 Welcome
10:00 – 11:00 Daniel Tataru (UC, Berkeley)
   Global solutions for quasilinear Schroedinger flows
11:00 – 11:15 Coffee Break
11:15 – 12:15 Sebastian Herr (Uni Bielefeld)
   Strichartz estimates and global well-posedness of the cubic NLS on the 2d torus
12:15 – 14:00 Lunch Break
14:00 – 15:00 Mihaela Ifrim (U of Wisconsin-Madison)
   Modified scattering for the three dimensional Maxwell-Dirac system
15:00 – 15:15 Coffee Break
15:15 – 16:15 Didier Pilod (U of Bergen)
   Finite point blowup for the critical generalized Korteweg-de Vries equation

• Tuesday, May 14th, 2024
10:00 – 11:00 Herbert Koch (Uni Bonn)
   The Korteweg-de Vries hierarchy in rough function spaces
11:00 – 11:15 Coffee Break
11:15 – 12:15 Raphaël Côte (IRMA, Strasbourg)
   Perturbation at blow up of self similar solution for mKdV
12:15 – 14:00 Lunch Break
14:00 – 15:00 Pierre Germain (Imperial College London)
   Nonlinear waves and turbulence
15:00 – 15:15 Coffee Break
15:15 – 15:30 Allison Byars (U of Wisconsin)
   Global Dynamics of the small data solutions to the Derivative Nonlinear Schrödinger Equation
15:30 – 15:45 Maximilian Ofner (U of Vienna)
   Expansion thresholds for the stability of cosmological fluids
15:45 – 16:00 Matthias Ostermann (U of Vienna)
Stable self-similar blowup for nonlinear wave equations beyond light cones

16:00 – 16:15 Coffee Break

16:15 – 16:30 Ovidiu-Neculai Avadanei (UC, Berkeley)
Low regularity well-posedness for the generalized surface quasi-geostrophic front equation

16:30 – 16:45 Matthew Kowalski (UCLA)
Dispersive decay for the energy-critical nonlinear Schrödinger equation

• Wednesday, May 15th, 2024

09:15 – 10:15 Michal Kowalczyk (U de Chile, Santiago)
Asymptotic stability of kinks in the odd energy space.

10:15 – 10:30 Coffee Break

10:30 – 11:30 Kenji Nakanishi (Kyoto U)
Initial classification of global behavior around multi-solitons for the nonlinear Klein-Gordon equation

11:30 – 11:45 Coffee Break

11:45 – 12:45 Sung-Jin Oh (UC, Berkeley)
Late time tail of waves on dynamic asymptotically flat spacetimes of odd space dimensions

12:45 – 14:15 Lunch Break

14:15 – 15:15 Arthur Touati
Initial data for stability theorems in general relativity

18:30 – 22:00 Conference Dinner

• Thursday, May 16th, 2024

10:00 – 11:00 Sohrab Shahshahani (UMass Amherst)
Codimension one stability of the catenoid for the hyperbolic vanishing mean curvature equation

11:00 – 11:15 Coffee Break

11:15 – 12:15 Hans Lindblad (Johns Hopkins U, Baltimore)
Scattering for wave equations with sources and slowly decaying data

12:15 – 14:00 Lunch Break

14:00 – 15:00 Hans Ringström (KTH Stockholm)
Formation of quiescent big bang singularities

15:00 – 15:15 Coffee Break

15:15 – 16:15 Christoph Kehle (ETH Zurich)
Extremal Critical Collapse

• Friday, May 17th, 2024

09:30 – 10:30 Philippe G. LeFloch (Sorbonne U, Paris)
Optimal shielding for Einstein gravity

10:30 – 10:45 Coffee Break

10:45 – 11:45 Maciej Maliborski (U of Vienna)
Periodic solutions for 1d nonlinear wave equation

All talks take place at ESI Boltzmann Lecture Hall!