hausdorff
CENTER FOR MATHEMATICS

UNIVERSITÄT BONN

Workshop on
"Conference: Harmonic Analysis and Partial Differential Equations"

May 29 - June 2, 2023

organized by
Sebastian Herr, Angkana Rüland, Christoph Thiele

- **Monday, May 29**

08:30 - 09:00	*Self Registration*
09:00 - 09:40	**Jean-Marc Delort**
	Norm inflation for solutions of semi-linear one dimensional Klein-Gordon equations
09:50 - 10:30	**Tadahiro Oh**
	Paracontrolled approach to singular stochastic wave equations
10:30 - 11:00	*Coffee Break*
11:00 - 11:40	**Xian Liao**
	Madelung Transform for the one-dimensional Gross-Pitaevskii Equation
11:40 - 14:00	*Lunch break*
14:00 - 14:40	**Mikko Salo**
	Instability mechanisms in inverse problems
14:50 - 15:30	**Nikolay Tzvetkov**
	Quasi-invariant measures for NLS
15:30 - 16:00	*Coffee Break*
16:00 - 16:40	**Christian Zillinger**
	On resonances in dissipative magnetohydrodynamics
16:50 - 17:30	**Pierre Raphaël**
	On blow up profiles and their stability

- **Tuesday, May 30**

09:00 - 09:40	**Pekka Koskela**
	Conformal invariance of Besov spaces
09:50 - 10:30	**Roland Donninger**
	Optimal blowup stability for wave maps
10:30 - 11:00	*Coffee Break and Group Photo*
11:00 - 11:40	**Franz Gmeineder**
	Old and new in L^1-estimates for differential operators
11:40 - 14:00	*Lunch break*
14:00 - 14:40	**Monica Visan**
	Recent progress on completely integrable equations
14:50 - 15:30	**Tristan Buckmaster**
	Singularities in fluid: Self-similar analysis, computer assisted proofs and neural networks
15:30 - 16:00	*Coffee break*
16:00 - 16:40	**Björn Bringmann**
	Invariant Gibbs measures for $(1 + 1)$-dimensional wave maps into Lie groups
16:50 - 17:30	**Yi Zhang**
	Stability of geometric inequalities: Old and new

- **Wednesday, May 31**

09:00 - 09:40	**Patrick Gérard**
	Unbounded Hankel operators and sharp wellposedness for the cubic Szegö equation
09:50 - 10:30	**Yuan Zhou**
	Regularity in the L-infinity variational problem
10:30 - 11:00	*Coffee break*
11:00 - 11:40	**Wenhui Shi**
	Optimal regularity of solutions for the parabolic Signorini problem
11:50 - 12:30	**Benjamin Dodson**
	Rigidity for the mass-critical NLS at the ground state
afterwards	*Lunch break and free afternoon*

- **Thursday, June 1**

09:00 - 09:40	**Yvan Martel**
	Asymptotic stability of solitary waves for the 1D cubic-quintic Schrödinger equation with no internal mode
09:50 - 10:30	**Tobias Lamm**
	Parabolic equations with rough initial data
10:30 - 11:00	*Coffee Break*
11:00 - 11:40	**Leonardo Tolomeo**
	Statistical mechanics of the focusing nonlinear Schrödinger equation
11:40 - 14:00	*Lunch break*
14:00 - 14:40	**Felix Otto**
	Convection-enhanced diffusion in a critical case
14:50 - 15:30	**Jonas Lührmann**
	On co-dimension one stability of the soliton for the 1D focusing cubic Klein-Gordon equation
15:30 - 16:00	*Coffee break*
16:00 - 16:40	**Birgit Schörkhuber**
	Singularity formation for the three-dimensional Keller-Segel system
16:50 - 17:30	**Nicolas Burq**
	Probabilistic and deterministic scattering for non linear Schrödinger equations

- **Friday, June 2**

09:00 - 09:40	**Miahela Ifrim**
	The small data global well-posedness conjecture for 1D defocusing dispersive flows
09:50 - 10:30	**Jeremy Marzuola**
	Damped Water Wave Models
10:30 - 11:00	*Coffee Break*
11:00 - 11:40	**Jean-Claude Saut**
	On the Boussinesq and Boussinesq like systems
11:50 - 12:30	**Daniel Tataru**
	Free boundary problems for Euler type flows
afterwards	*closing*