hausdorff CENTER FOR MATHEMATICS

UNIVERSITÄT BONN

Conference on

"Nonlinear PDE´s, images, shapes and beyond - a conference in honor of Martin Rumpf´s 60th birthday"

June 3-5, 2024

organized by
Benjamin Berkels, Alexander Effland, Benedikt Wirth

- **Monday, June 3**

12:00 - 13:00	*Welcome*
13:00 - 14:00	**Patrick Dondl**
	Pomelo and Cactus-Mathematics
14:00 - 15:00	**Gabriele Steidl**
	Wasserstein Gradient Flows and Generative Models for Posterior Sampling in Inverse Problems
15:00 - 15:30	*Coffee Break and Group Photo*
15:30 - 16:30	**Max Wardetzky**
	Sub-Riemannian Random Walks: From Connections to Retractions
16:30 - 17:30	**Tobias Preußer**
	TBA
afterwards	*Reception*

- **Tuesday, June 4**

09:00 - 10:00	**Felix Otto**
	Thin-film equation with thermal noise: a need for renormalization, and a positivity preserving discretizatio
10:00 - 11:00	**Mirela Ben-Chen**
	From Thin Film Flow to Elastic Correspondence, a functional approach to surface processing
11:00 - 11:30	*Coffee Break*
11:30 - 12:30	**Peter Schröder**
	Going with the Flow
12:30 - 14:00	*Lunch break*
14:00 - 15:00	**Carola Schönlieb**
	Mathematical modelling and AI for scientific imaging: from nonlinear PDEs and Riemannian geometry to neural networks
15:00 - 15:30	*Coffee break*
15:30 - 16:30	**Robert Strzodka**
	Alternating and Multiplicative Operator Splittings
16:30 - 17:30	**Rüdiger Schultz**
	How shapes learned shaking

- **Wednesday, June 5**

09:00 - 10:00	**Martin Metscher**
	Shaping the future of aviation - Technology roadmap towards emission-free flying
10:00 - 11:00	**Barbara Zwicknagl**
	Variational models for pattern formation in helimagnets
11:00 - 11:30	*Coffee Break*
11:30 - 12:30	**Sergio Conti**
	A variational phase-field model of cohesive fracture
afterwards	*Closing*