

Workshop
“Topological and geometrical aspects in complex materials”

March 27 - 31, 2023

organized by
Valeria Banica (Sorbonne), Radu Ignat (Toulouse), Luc Nguyen (Oxford)

Time measurement: CET

• **Monday, March 27**

10:30 - 11:00	<i>Arrival and Registration; Coffee</i>
11:00 - 11:10	<i>Welcome by HIM Director Christoph Thiele</i>
11:10 - 12:00	Philippe Gravejat <i>Stability of the Ginzburg–Landau vortex</i>
12:00 - 15:10	<i>Lunch break</i>
15:10 - 16:00	Eliot Pacherie <i>Uniqueness of the two vortex travelling wave in the Gross–Pitaevskii equation</i>
16:00 - 16:30	<i>Coffee break</i>
16:30 - 17:20	Mihai Mariş <i>Special classes of solutions to the Gross–Clark system</i>

• **Tuesday, March 28**

09:30 - 10:20	Xavier Lamy <i>On Lebesgue points of entropy solutions to the 2D eikonal equation</i>
10:20 - 10:50	<i>Coffee break</i>
10:50 - 11:40	Guanying Peng <i>Compactness and regularity for a generalized Aviles–Giga functional</i>
11:40 - 12:30	Benoît Merlet <i>About the nonoriented Aviles–Giga functional</i>
12:30 - 15:10	<i>Lunch break</i>
15:10 - 16:00	Adriano Pisante <i>Torus-like solutions for the Landau–de Gennes model</i>

16:00 - 16:30	<i>Coffee break</i>
16:30 - 17:20	Arghir Dani Zărnescu <i>Symmetry and multiplicity of solutions in a two-dimensional liquid crystal model</i>
18:00	<i>Reception in the coffee room: Wine and pretzels</i>

• **Wednesday, March 29**

09:30 - 10:20	Matthias Kurzke <i>Global Jacobians, boundary vortices and polynomials</i>
10:20 - 10:50	<i>Coffee break and Group Photo</i>
10:50 - 11:40	Susana Gutiérrez <i>Self-similar solutions of the 1d Landau–Lifshitz–Gilbert equation</i>
11:40 - 12:30	Raphaël Côte <i>Asymptotic stability of precessing domain walls in ferromagnetic nano wires</i>
12:30 - 15:10	<i>Lunch break</i>
15:10 - 16:00	Lia Bronsard <i>Core shells and double bubbles in a weighted nonlocal isoperimetric problem</i>
16:00 - 16:30	<i>Coffee break</i>

• **Thursday, March 30**

09:30 - 10:20	Vincent Millot <i>Regularity theory for fractional harmonic maps into spheres</i>
10:20 - 10:50	<i>Coffee break</i>
10:50 - 11:40	Ludovic Godard-Cadillac <i>Hölder regularity for collapses of point vortices</i>
11:40 - 12:30	Bogdan Raită <i>On concentration effects in pde</i>
12:30 - 15:10	<i>Lunch break</i>
15:10 - 16:00	Angkana Rüland <i>On Rigidity, Flexibility and Scaling Laws: The Tartar Square</i>
16:00 - 16:30	<i>Coffee break</i>
16:30 - 17:20	Georg Dolzmann <i>Evolution of vector fields on flexible curves and surfaces</i>

• **Friday, March 31**

09:30 - 10:20	Barbara Zwicknagl <i>Needle-like martensitic microstructures in shape-memory alloys</i>
10:20 - 10:50	<i>Coffee break</i>
10:50 - 11:40	Antonin Monteil <i>Magnetic skyrmions confined in a bounded domain</i>