



Active Matter at Surfaces and in Complex Environments

International Workshop 19 - 23 June 2023

Active matter represents a new class of non-equilibrium soft condensed matter where energy harvesting, and conversion take place at the level of individual constituents. Examples include, but are not limited to, unicellular microorganisms or active colloidal particles. This workshop will cover the emerging field of active matter in complex environments.



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Invited speakers:

Anna Balazs (US) Larysa Baraban (DE) John F. Brady (US) Clemens Bechinger (DE) Kyle Bishop (US) Frank Cichos (DE) Eric Clement (FR) Cécile Cottin-Bizonne (FR) Marjolein Dijkstra (NL) Roberto Di Leonardo (IT) Alvaro Dominguez (ES) Jörn Dunkel (US) Suzanne Fielding (UK) Peer Fischer (DE) Ramin Golestanian (DE) Gerhard Gompper (DE) Christian Holm (DE) Frank Jülicher (DE) Oleg Lavrentovich (US) Tanniemola B. Liverpool (UK) M. Cristina Marchetti (US)

Jacques Prost (FR) Sriram Ramaswamy (IN) Francesc Sagués (ES) Ulrich Schwarz (DE) Christine Selhuber-Unkel (DE) Anupam Sengupta (LU) Ivan I. Smalyukh (US) Holger Stark (DE) Giovanni Volpe (SE)

Scientific coordinators:

Mykola Tasinkevych Nottingham, United Kingdom

Margarida Telo da Gama Lisbon, Portugal

William Uspal Manao, USA

Organisation:

Katrin Lantsch

Topics:

- Microswimmers at hard walls and fluid interfaces
- Active-passive interfaces
- Self-propelled particles in confined geometries
- Active colloidal materials
- Microrheology of active suspensions
- Motile active droplets on substrates
- Biomedical applications of nanopropellers
- Bioactive fluids and biological tissues
- Biofilms, and bacteria in porous environments
- Collective behaviour of cells or unicellular microorganisms at surfaces of scaffolds
- Mecanochemical coupling in living matter
- Collective properties of enzymes

Self-propelled motion in nematic environments

Driven motion of liquid crystal skyrmions

MPIPKS Dresden

Applications received before 15 March 2023 are considered preferentially.

We plan an on-site workshop. Talks and posters will only be presented on-site.

Applications are welcome and should be made by using the application form on the event's web page. The number of attendees is limited. The **registration fee** for the international workshop is 140 Euro and should be paid by all on-site participants. Costs for accommodation and meals will be covered by the Max Planck Institute for all on-site participants. Limited funding is available to partially cover travel expenses.

For further information please contact:

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We also offer individual fellowships (phd, postdoc, sabbatical). Applications are accepted continuously. For details, please check www.pks.mpg.de/visitors