The GEILO School 2019

Organized by
Physics Department, Institute for Energy Technology (IFE),
in cooperation with the Soft and Complex Matter group at NTNU

Evolving Soft Matter:
Shape, Dynamics and Functionality

11-21 March 2019, Geilo, Norway

For details and registration: www.ife.no/geilo

Themes

A) Shape is an important concept in many areas of soft matter like colloidal and interface science, crumpling of two-dimensional sheets, as well as surfaces and membranes in biology. The description and control of shape in surfaces and interfaces is thus of wide interest in evolving soft matter systems.

B) Dynamics in evolving soft matter occurs as nonequilibrium phenomena where local shape and curvedness changes in moving surfaces and interfaces as for example in growth, fracture, deformation. pattern formation, flocking behavior and morphogenesis in living matter.

C) Functionality of evolving soft matter is important in many applications like the use of foams, adhesives, detergents, cosmetics, paints, food additives, lubricants, smart materials and soft robotics. In addition, functionality is obviously abundantly important in all biological materials.

Topics will cover both experiments and theory. In addition to about 40 hours of invited lectures and seminars, there will be tutorials and discussions. Participants are encouraged to submit abstracts for a poster session.

Objective

The objective of this School is to bring together researchers with various interests and background in fields like soft matter science, complex matter physics, biological physics, mechanical or chemical engineering. The focus of the School is synergism between modern science and technology in the area of physics inspired by evolving soft matter.

Invited Lecturers

- Eric Clement, ESPCI, Paris, France
- Stéphane Douady, Univ. Paris-Diderot, France
- Tom Witten, Univ. Chicago, USA
- Daniel Bonn, Univ. Amsterdam, Netherlands
- Maria Helena Godinho, New Univ. Lisbon, Portugal
- David Hu, Georgia Tech., USA
- Ramin Golestanian, Max Planck Inst., Göttingen, Germany
- David Nelson, Harvard Univ., USA
- Adrian Rennie, Uppsala Univ., Sweden
- Petra Rudolf, Univ. Groningen, Netherlands
- Alain Goriely, Oxford Univ., UK

Accommodations and transportation

Accommodation including all meals: From 850 NOK per person and night for double room in cabins at the hotel.
For other options see **REGISTRATION** page.

Transportation from Oslo Airport at 15:00 to Geilo on March 11 and back to airport before 11:30 on March 21 will be provided.

Organizing Committee

Arne T. Skjeltorp	- Institute for Energy Technology and Giamag Technologies, Norway
Jon Otto Fossum	- NTNU, Trondheim, Norway
Geir Helgesen	- Institute for Energy Technology and University of Oslo, Norway
Paul Dommersnes	- NTNU, Trondheim and Giamag Technologies, Norway
Kenneth Knudsen	- Institute for Energy Technology and NTNU, Trondheim, Norway

Organizer contact email:
fysikk@ife.no

A 10-day School in Condensed Matter organized every two years since 1971. Listing of all of the 24 preceding Schools can be found at www.ife.no/departments/physics/projects/geilo

- The purpose of these schools has been to present in a pedagogical manner the recent advances in the physics of hard and soft condensed matter with emphasis on phase transitions and dynamics. Altogether, more than 1500 students from around 30 different countries have participated in these schools.
- For graduate students, post-doctoral fellows, faculty, and others who would like to gain an understanding of the fundamentals of soft matter for application to research in their respective fields.

The Geilo School

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