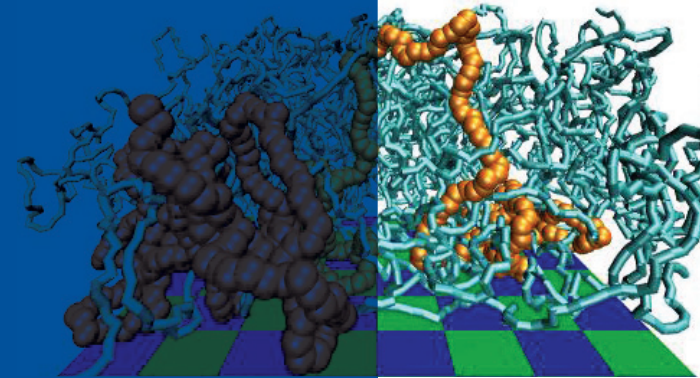


CHALLENGES AND PROSPECTS OF SOFT MATTER AT INTERFACES



The aim of this workshop is to discuss current challenges in interface science involving soft matter materials and the new opportunities provided by soft materials to tailor surface properties. We propose to focus on three thematic areas dealing i) with the design of soft matter surfaces and their impact on materials properties, ii) with interfaces in biological and bio-inspired systems, and iii) with the control of wetting and lubrication properties.

The discussion will be opened by invited talks and further fuelled by invited and contributed “flash presentations”. These presentations are very short contributions: They give complementary statements on the topics exposed in the talks, raise questions or sketch new ideas. All participants are welcome to present their opinion in flash presentations. An extended poster session provides a further opportunity to continue the discussion.

INVITED SPEAKERS

Eduard Arzt

Universität des Saarlandes, Saarbrücken, Germany

Markus Biesalski

Technische Universität Darmstadt, Germany

Oleg Borisov

Université de Pau et des Pays de l'Adour, France

Hans-Jürgen Butt

Max-Planck-Institut für Polymerforschung, Mainz, Germany

Stephan Herminghaus

Max-Planck-Institut für Dynamik und Selbstorganisation, Göttingen, Germany

Alain M. Jonas

Université catholique de Louvain, Belgium

Carlos Marques

Institut Charles Sadron, Strasbourg, France

Marcus Müller

Georg-August-Universität, Göttingen, Germany

Frieder Mugele

University of Twente, Enschede, The Netherlands

David Quéré

Ecole Supérieure de Physique et de Chimie Industrielles de la Ville de Paris, France

Thomas Schimmel

Karlsruher Institut für Technologie, Germany

Alessandro Siria

Université Claude Bernard Lyon 1, France

Thomas Thurn-Albrecht

Martin-Luther-Universität, Halle-Wittenberg, Germany

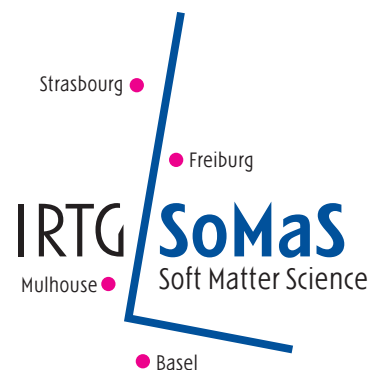
Kripa Varanasi

Massachusetts Institute of Technology, Cambridge, USA

ORGANIZERS

Jürgen Rühle (Freiburg, Germany)
Andreas Fery (Bayreuth, Germany)
Günter Reiter (Freiburg, Germany)
Jörg Baschnagel (Strasbourg, France)

This meeting is organized within the framework of our meeting series focusing on discussions about challenges and prospects of soft matter science.



THEMATIC AREAS

Design of soft matter surfaces and impact on materials properties

What are the limits and limitations of top-down and bottom-up approaches?
What are current challenges in the design of surfaces for specific applications?
How to fine-tune materials properties by the guiding influence of surfaces or substrates?
How do interfaces impact the properties of soft materials?

Interfaces in biological materials and bioinspired interfaces

How to create highly biocompatible or highly bioinert interfaces?
Which factors or processes determine the behaviour of biopolymers near surfaces?
How to create long-lasting non-fouling surfaces?
What controls cell adhesion on surfaces?
How can transformations in membranes be induced by physical and chemical stimuli?

Surfaces with controllable wetting and lubrication properties

To what extent do microscopic properties of surfaces determine their macroscopic behavior, e.g., in nanofluidic or microfluidic applications?
How to reversibly switch wetting properties or make them alter with time?
How can one achieve highly water-repellent surfaces?
How to relax from "contaminated states"?

LOCATION

Vier Jahreszeiten am Schluchsee

Am Riesenbühl
D-79859 Schluchsee
+ 49 (0)7656 70326
www.vjz.de

Duration of the Meeting

Beginning: Wednesday 24th April (morning)
End: Friday 26th April (after lunch)

Participation Fee

(including accommodation): 350,- €

Deadline for Registration

March 29, 2013

CONTACT

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Further Information and Registration

<http://www.softmattergraduate.uni-freiburg.de/discussionmeeting2013>

IRTG SoMaS
International Research Training Group Soft Matter Science

A DISCUSSION
MEETING

CHALLENGES
AND PROSPECTS
OF SOFT MATTER
AT INTERFACES
APRIL 24-26, 2013

