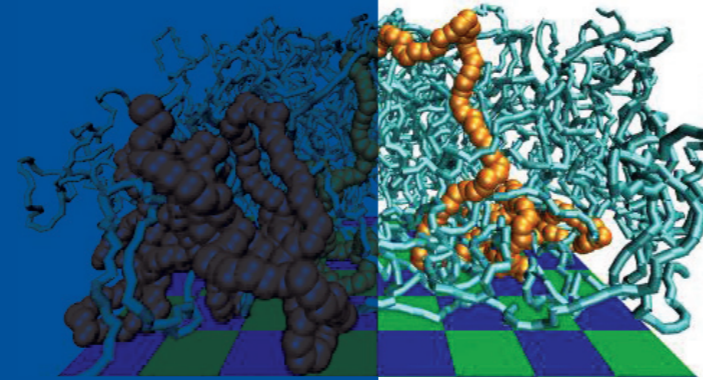


## CHALLENGES AND PROSPECTS OF SOFT MATTER AT INTERFACES



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

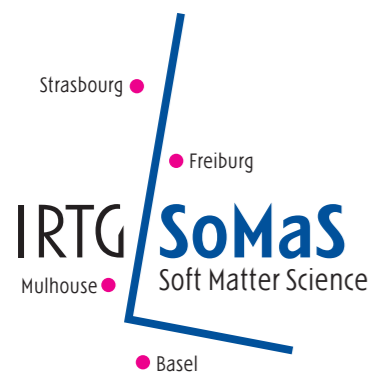
### **Kripa Varanasi**

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

