Day 1: Mon, July 9		Day 2: Tue, July 10		Day 3: Wed, July 11	
08:30 09:30 10:15	Departure from Aachen (IPC; Landoltweg 2) Registration and Coffee Welcome / Introduction Prof. Walter Richtering	08:30	Swelling, Structure and Thermodynamics of Ionic Microgels: Theoretical and Simulation Modeling Prof. Alan Denton (North Dakota State University)	09:00	Characterizing and Engineering Internal Morphologies in Thermoresponsive Microgels Prof. Todd Hoare (McMaster University) Microstructure, Transport
10:30	Reactive Poly( <i>N</i> -vinyllactams) as Versatile Building Blocks for the Design of Functional Modular Microgels Prof. Andrij Pich (SFB 985)	09:30	Computer Simulations of Microgels in Solutions and at Interfaces Prof. Igor Potemkin (SFB 985)		Properties and Filtration Modelling of Microgel Suspensions Prof. Gerhard Nägele (SFB 985)
11:30	Small-angle Neutron Scattering	10:30	Coffee Break	11:00	Coffee Break
	Dr. Andrea Scotti (SFB 985)	11:00	Mesoscale Modeling of	11:30	Crystals, Defects and Glasses of Compressible Microgels
12:30	Lunch		Polymer Microgels Prof. Alexander Alexeev (Georgia Tech)		Prof. Alberto Fernandez-Nieves
13:30	Fluorescence Imaging of Microgels Prof. Dominik Wöll (SFB 985)	12:00	In Silico Synthesis of Microgels: Swelling, Elasticity and Effective	12:30	(Georgia Tech) Lunch
14:30	Using Microgels as Colloidal Building Blocks to Construct Functional Materials		Interactions Dr. Emanuela Zaccarelli (Sapienza University)	13:30	Hierarchical Mechanics and Assembly in Hydrogels Prof. Peter Yunker (Georgia Tech)
	Prof. Brian Saunders (University of Manchester)	13:00	Lunch	14:30	Self-Assembly of Microgels Dr. Jérôme Crassous (SFB 985)
15:30	Coffee Break	14:15	Free time / Hiking tour	15:30	Coffee Break
16:00	Microgels for Building Blocks for Tissue Regenerative Materials Dr. Laura De Laporte (SFB 985)			16:00	Protein Engineering for Enzyme Catalysis with Microgels
17:00	Biomedical Applications of Synthetic Microgels Prof. Andres Garcia (Georgia Tech)	10-00	Dinner	19.00	Prof. Ulrich Schwaneberg (SFB 985) Guided Tour Monschau
18:00	Dinner	18:00	Dinner	18:00	
19:00	Poster Session	19:00	Poster Session	19:30	Dinner "Brewery Felsenkeller Monschau"

# Day 4: Thu, July 12

- 09:00 Electrochemistry of Microgels PD Felix Plamper (SFB 985)
- 10:00 Programmable Matter: Shape Shifting 3D Printed Polymer Gels Prof. Elisabetta Matsumoto (Georgia Tech)

### 11:00 Coffee Break

- 11:30 The Extreme Thermodynamics of Polymer Gels Dr. Mike Dimitriyev (Georgia Tech)
- 12:30 Closing remarks Prof. Alberto Fernandez-Nieves
- 12:45 Lunch
- 13:45 Departure to Aachen
- 15:30 Free time / Guided Tour Aachen Cathedral
- 19:00 Farewell Dinner Aachen BBQ-Party at the IPC

## **General Information**

Sun, July 8 Arrival to Aachen Mon, July 9 – Thu, July 12 Summer School in Monschau with bus transfer from and back to Aachen Thu, July 12 Farewell Dinner in Aachen Fri, July 13 Departure from Aachen

After spending one night in university's guesthouse in Aachen, a bus will transfer us to the summer school venue in Monschau. Additionally to the scientific program, also leisure activities like hiking in the Eifel and a guided tour through Monschau with tasting of regional specialties are planned. Back in Aachen, you can spend one free afternoon in the city of Europe's fascinating emperor Charlemagne or take part in a guided tour. In the evening we will have a farewell dinner in Aachen before the departure on the following day.

#### Contact

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### Functional Microgels and Microgel Systems

July 9-12, 2018 in Monschau, Germany

The second summer school on Functional Microgels and Microgel Systems, which will be jointly organized by the SFB 985 Functional Microgels and Microgel Systems at RWTH Aachen University (Germany) and the Georgia Institute of Technology (USA) is approaching. The workshop will take place in Monschau (near Aachen) in July 2018. As lecturers, we will again have world leading scientists with expertise from different fields with a common interest in microgels.

## Please, apply until February 1, 2018

### **Registration:**

www.microgels.de/summerschool



SFB 985 Functional Microgels and Microgel Systems

**Georgia**Institute of **Tech**nology