

## Call for Abstracts

Papers dealing with the topics of the conference to be presented as orals or posters are welcome. If you wish to present your work, please submit an extended abstract using our online abstract submission system. Instructions for preparing the abstract as well as Word and Latex templates are available on the conference website.

## Important Dates

Deadline for Abstract Submission: 30 April 2016

Notification of Authors: 31 May 2016

End of Early-Bird Registration: 15 July 2016

Start of Scientific Programme: 4 October 2016, at 9 am

End of the Conference: 7 October 2016, at 2 pm

## Registration Fees

	normal	student
Early-Bird Registration (until 15 July 2016)	475 Euro	250 Euro
Late Registration (from 16 July 2016)	575 Euro	350 Euro
Accommodation	+60 Euro/night	

The registration fee includes the book of abstracts, catering during lunch and coffee breaks, and the conference dinner. The accommodation fee includes overnight stays in a single, non-smoking room and breakfast in IBIS Hotel Bonn or Gustav Stresemann Institut.

IBIS Hotel Bonn  
Vorgebirgsstr. 33  
53119 Bonn  
www.ibis.de

Gustav Stresemann Institut  
Langer Grabenweg 68  
53175 Bonn  
www.gsi-bonn.de

A hotel preference can be chosen in the registration process.

## Conference Venue

Forschungszentrum caesar  
Ludwig-Erhard-Allee 2  
53175 Bonn, Germany  
www.caesar.de



## Contact Information

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## Registration and Further Information [www.fz-juelich.de/ics/microswimmers](http://www.fz-juelich.de/ics/microswimmers)

### PUBLICATION DETAILS

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## International Conference: Microswimmers – From Single Particle Motion to Collective Behaviour

4 – 7 October 2016 in Bonn, Germany



## Scope

The motility of cells and microorganisms is a cornerstone of the existence of life and an outstanding achievement of evolution. Self-propulsion, sophisticated navigation strategies, and self-organized, spontaneous collective motion of swarms are prerequisites that facilitate, *inter alia*, bacteria to search for food, algae to orient towards light, and sperm cells to find and fertilize the ovum. The imitation of these evolutionary achievements with artificial microswimmers has an enormous potential impact on the life, environmental, and material sciences, but requires a deeper understanding of the various aspects of swimming at the microscale.

Interest in the field is increasing, and progress in understanding and designing microswimmers is rapidly advancing. Therefore the DFG Priority Programme 1726 “Microswimmers” is organizing this international conference with the aim of bringing together scientists from the various disciplines involved in microswimmer research and disseminating recent research highlights.

## Topics

- **Cells and Microorganisms**
- **Artificial Swimmers**
- **Nano- and Microbots**
- **Swimming Mechanisms**
- **Collective Behaviour**
- **Synchronization**
- **Swimming in Confinement and External Fields**
- **Related Systems (Tissue Growth, Motility Assays, ...)**

## Programme

The programme will consist of invited lectures, contributed talks and posters.

### Invited speakers include:

**Ronojoy Adhikari**, Institute of Mathematical Sciences, India  
**Igor Aronson**, Argonne National Laboratory, USA  
**Markus Bär**, Physikalisch-Technische Bundesanstalt, Germany  
**Andreas Bausch**, Technical University of Munich, Germany  
**John Brady**, California Institute of Technology, USA  
**Hugues Chaté**, CEA Saclay, France  
**Roberto di Leonardo**, Sapienza University of Rome, Italy  
**Irene Giardina**, Sapienza University of Rome, Italy  
**Ramin Golestanian**, University of Oxford, UK  
**Yariv Kafri**, Technion, Israel  
**Vasily Kantsler**, University of Warwick, UK  
**Raymond Kapral**, University of Toronto, Canada  
**Eric Lauga**, University of Cambridge, UK  
**Cristina Marchetti**, Syracuse University, USA  
**Bradley J. Nelson**, ETH Zurich, Switzerland  
**Ignacio Pagonabarraga**, University of Barcelona, Spain  
**Philippe Peyla**, Joseph Fourier University Grenoble, France  
**Wilson Poon**, University of Edinburgh, UK  
**David Saintillan**, University of California, USA  
**Pietro Tierno**, University of Barcelona, Spain  
**Douglas B. Weibel**, University of Wisconsin, USA  
**Laurence Wilson**, University of York, UK  
**Charles Wolgemuth**, University of Arizona, USA  
**Alois Würger**, University of Bordeaux, France

All projects of the DFG Priority Program 1726 will also be presented. Additional talks will be selected from the submitted abstracts.

## Scientific Organization

The Conference is organised by the Steering Committee of the DFG Priority Programme 1726:

**Gerhard Gompper** (Forschungszentrum Jülich) – SPP Coordinator  
**Clemens Bechinger** (University of Stuttgart)  
**Stephan Herminghaus** (MPI for Dynamics and Self-Organization, Göttingen)  
**U. Benjamin Kaupp** (Forschungszentrum caesar, Bonn)  
**Hartmut Löwen** (University of Düsseldorf)  
**Holger Stark** (Technical University Berlin)  
**Roland G. Winkler** (Forschungszentrum Jülich)

## About the “Microswimmers”-DFG Priority Programme SPP 1726

The purpose of this DFG Priority Programme is to advance knowledge in the emerging field of active matter through collaborative support and networking over several locations. The SPP 1726 “Microswimmers – From Single Particle Motion to Collective Behaviour” connects physicists, chemists, biologists, and material scientists throughout German academic research laboratories. This combined expertise in experiment, theory, and simulation is used to investigate the behaviour of microscopic swimmers. Overall, the three major objectives of the programme are

- understanding biological swimmers,
- designing and understanding artificial microswimmers, and
- understanding cooperative behaviour and “swarming” of ensembles of microswimmers.