

Fluid Physics of Life



International Workshop 21 - 25 October 2019

Fluid flow is a key player for the function and behaviour of biological systems. Without fluid flow, life as we know it would not exist.

Understanding the flow dynamics is challenging since flows are inherently coupled over spatial and temporal scales and may transport along active particulates that impact surrounding morphology. This workshop brings together physicists, applied mathematicians, biologists, and physiologists to work on the fundamental principles of how flows govern life.

Topics:

- Flows within the cell
- Flow tissue interaction
- Transport and pumps
- Selective transport and signaling
- Flow biofilm interaction

Invited speakers:

opyright: Forschungszentrum Jüli

Knut Drescher (DE) Jörn Dunkel (US) Regina Faubel (US) Ray Goldstein (UK) Ramin Golestanian (DE) Stephan Grill (DE) Kaare Jensen (DK) Frank Jülicher (DE) Nathalie Jurisch-Yaksi (NO) Celeste Nelson (US) Marcus Roper (US) Masaki Sano (JP) Mike Shelley (US) Boris Shraiman (US) Arndt Siekmann (US) Kathleen Stebe (US) Howard Stone (US)

Michael Wilczek (DE)

Alexandra Zidovska (US)

Scientific coordinators:

mpipks

Karen Alim, Göttingen (DE)

Eberhard Bodenschatz, Göttingen (DE)

Gerhard Gompper, Jülich (DE)

Organisation:

Maria Voigt MPIPKS Dresden

Applications received before 15 July 2019 are considered preferentially.

Applications are welcome and should be made by using the application form on the event's web page. The number of attendees is limited. The registration fee for the international workshop is 140 Euro and should be paid by all participants. Costs for accommodation and meals will be covered by the Max Planck Institute. Limited funding is available to partially cover travel expenses.

For further information please contact:

Visitors Program – Maria Voigt MPI for the Physics of Complex Systems Nöthnitzer Str. 38, D-01187 Dresden Tel: +49-351-871-1932 Fax: +49-351-871-2199 fplife19@pks.mpg.de www.pks.mpg.de/fplife19/