IUTAM Symposium on Motile Cells in Complex Environments

Call for Papers

Important Deadlines

- Submission of Abstracts until
  January 12, 2018
- Notification of Acceptance
  January 31, 2018
- Early Bird Registration until
  March 15, 2018

Symposium Organization

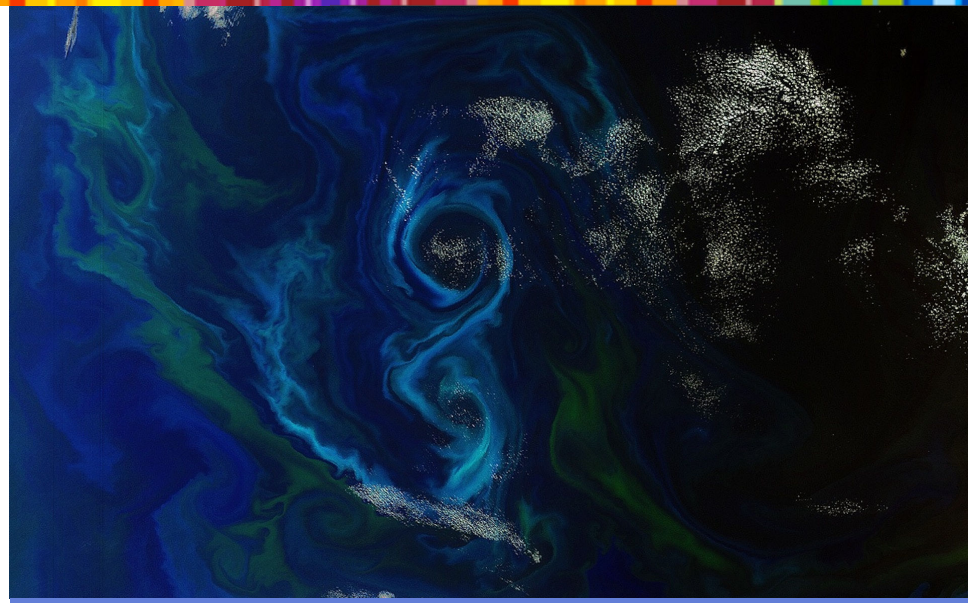
Chairman:
Cristian Marchioli
University of Udine
33100, Udine (Italy)
Email: marchioli@uniud.it

Co-Chairman:
Eric Climent
IMFT, Université de Toulouse
CNRS-INPT-UPS
31400, Toulouse (France
Email: eric.climent@imft.fr

Sponsors

IUTAM International Union of Theoretical and Applied Mechanics

CINECA CISM INP TOULOUSE



IUTAM Symposium on Motile Cells in Complex Environments

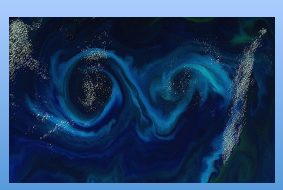
Udine, Italy
May 14-18, 2018

calliope.dem.uniud.it/IUTAM2018

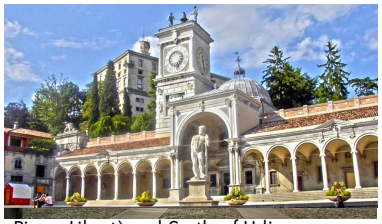
IUTAM

IUTAM Symposium on Motile Cells in Complex Environments

University of Udine
May 14-18, 2018



University of Udine: Rector's Office



Piazza Libertà and Castle of Udine

Fifteenth-century Loggia del Lionello

University of Udine: Meeting room

Call for Papers

Authors wishing to contribute to the Symposium are invited to submit a two-page abstract, clearly stating the objectives, results and conclusions of the work to be discussed in the presentation. The number of participants will be limited and preference will be given to active researchers in the field. Confirmation of participation in the Symposium by the authors will be required upon abstract acceptance. Only confirmed presentations of registered participants will be included in the final program. This will allow the participants to fully benefit from the contributions and discussion.

Venue

The Symposium will take place at the University of Udine, located in the northeast of Italy. The Symposium location will be in the campus of the University of Udine, which can be easily reached on foot (from the center of the city) or by public transportation.

Social Program

The scientific program will be complemented by several social events, including a get-together with reception and a social dinner.

Objectives

The Symposium will bring together experts in the complementary fields of **physics**, **applied mathematics**, **chemistry**, **biology**, **life sciences**, and **engineering** to discuss multidisciplinary theoretical, numerical and experimental approaches to predict the behavior of **active complex fluid systems** characterized by the presence of motile living cells. Cell motility is a multi-faceted interdisciplinary challenge for a wide community of scientists, with applications ranging from medical to bio-technological and environmental issues. The Symposium spans a wide selection of topics, from single swimmer propulsion and navigation mechanisms to synchronized and collective motion, focusing on how active cells may use hydrodynamic interaction as well as biochemistry to coordinate their locomotion. Of interest are also the dynamics and rheology of active fluids, fluid-structure interactions in bio-inspired systems, growth of tissues, and surface colonization. In recent years, many experimental or numerical results have been produced and many (sometimes competing) theories have been developed.

Aims

The Symposium will provide the opportunity to compare and contrast the different available approaches, giving a global overview of the most significant advancements in the field. It will also serve the purpose of identifying the main open issues and research pathways that the community should focus on in the future.

Scientific Committee

The Symposium is supervised by an international Scientific Committee:

- Arezoo Ardekani, USA
- Rachel Bearon, UK
- Eric Climent, France (Co-Chair)
- Cristian Marchioli, Italy (Chair)
- Ignacio Pagonabarraga, Spain
- Alfredo Soldati, Austria
- Roman Stocker, Switzerland
- Ganesh Subramanian, India
- Roland Winkler, Germany

IUTAM Representative:

- Bernhard Schrefler, Italy