

# Conference on Collective Behavior



**7 - 11 May 2018**  
**Trieste, Italy**

Further information:  
<http://indico.ictp.it/event/8307/>  
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Recent, rapid progress in the collective-behavior field presents a well-timed opportunity to initiate a fruitful interdisciplinary discussion. This conference will bring together experts from different scientific fields—including biology, physics and engineering—to help identify new cross-disciplinary challenges, to boost the development of new ideas, and to foster the birth of an interdisciplinary community working in this field.

## Description:

In nature, collective behavior is a widespread phenomenon that spans many systems at different length- and time-scales, from cells forming complex tissues to fish schools and bird flocks. It has become a unifying concept in a range of disciplines, from the spontaneous ordering of spins in ferromagnetic systems in physics, to the emergence of herding behavior in economics, to the consensus dynamics in social sciences. Furthermore, enormous potential lies in the field of robotics, where artificial collectives could be created with the abilities of natural ones.

How is information transferred through a group? What is the structure of the underlying interaction and communication network? What is the role of the inter-individual differences (physiological, social, etc.) in group decision-making? What is the relationship between organisms and their habitat? This conference will look at how multidisciplinary teams are tackling open issues in collective behavior.

## How to apply:

Online application:  
<http://indico.ictp.it/event/8307/>

Female scientists are encouraged to apply.

## Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee.

## Directors:

Iain Couzin (Max Planck Institute for Ornithology)  
Dario Floreano (EPFL)  
Irene Giardina (University of Rome)  
Asja Jelic (ICTP)

## Local Organizer:

Antonio Celani (ICTP)

## Workshop Speakers:

Lucy Aplin (University of Oxford)  
Nicolas Bredeche (UPMC)  
Andrea Cavagna (CNR, Rome)  
Hugues Chaté (CEA)  
Gonzalo De Polavieja (Champalimaud Foundation)  
Audrey Dussutour (Université Toulouse III)  
Ofer Feinerman (Weizmann Institute of Science)  
Francesco Ginelli (University of Aberdeen)  
Deborah M. Gordon (Stanford University)  
Roderich Gross (University of Sheffield)  
Takashi Ikegami (University of Tokyo)  
Naomi E. Leonard (Princeton University)  
M. Cristina Marchetti (Syracuse University)  
Patrizio Mariani (Technical University of Denmark)  
James Marshall (University of Sheffield)  
Thierry Mora (ENS)  
Melanie E. Moses (University of New Mexico)  
Thomas Schmickl (University of Graz)  
Ariana Strandburg-Peshkin (Max Planck Institute for Ornithology)  
Guy Theraulaz (Université Toulouse III)  
Shashi Thutupalli (SCSLM, NCBS, ICTS)  
Colin Torney (University of Glasgow)  
Tamás Vicsek (Eötvös University Budapest)  
Aleksandra Walczak (ENS)  
Justin Werfel (Harvard University)

## Deadline:

**14 February 2018**

For applicants requesting financial support

**31 March 2018**

For applicants NOT requesting financial support



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