ETH zürich

Transport phenomena in collective dynamics: from micro to social hydrodynamics

1 to 4 November 2016, ETH Zürich

Abstract

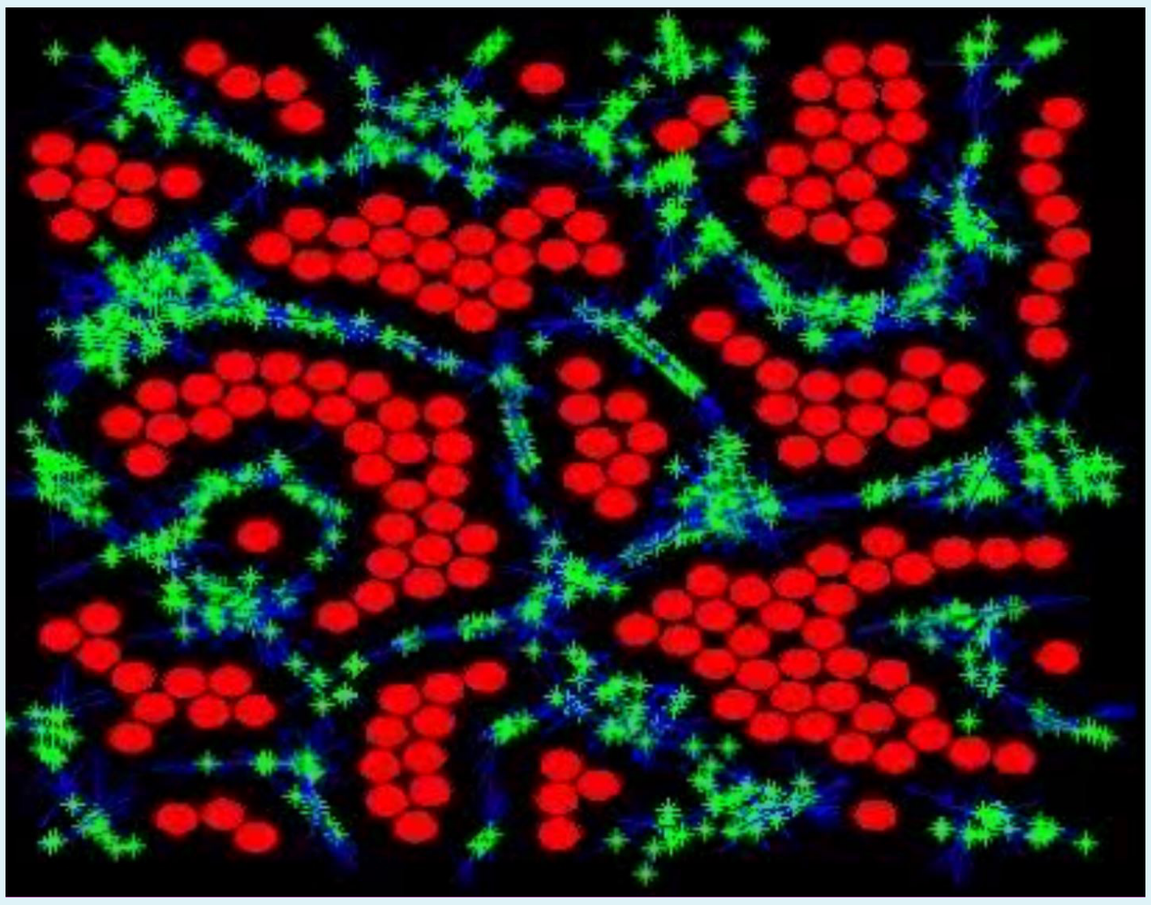
In recent years there have been rapid developments in mathematical description of collective dynamics, driven by nonlinear transport equations with local and non-local means. This includes multi-scale phenomena ranging from agent-based through kinetic and hydrodynamics descriptions of models related to the emergence of coherent structures in crowd and traffic dynamics, flocking, swarming, ... The modeling, analysis and efficient computation of these phenomena are the main focus of this conference.

Goals

This aim of this conference is to bring together researchers working on different aspects of transport across multiple scales and present state of art theoretical and numerical results and their interplay with current applications.

Speakers

Yann Brenier, École Polytechnique
José Carrillo, Imperial College London
Alina Chertock, North Carolina State University
Maria Colombo, Universität Zürich
Rinaldo Colombo, Università degli Studi di Brescia
Iain Couzin, Universität Konstanz, Max-Planck-Institut für Ornithologie
Pierre Degond, Imperial College London
Camillo De Lellis, Universität Zürich
Guido De Philippis, SISSA
Qiang Du, Columbia University
Alessio Figalli, ETH Zürich
Francis Filbet, Université Paul Sabatier, Toulouse III
François Golse, École Polytechnique
Nir Gov, Weizmann Institute
Ilya Karlin, ETH Zürich
Govind Menon, Brown University
Sara Merino-Aceituno, Imperial College London
Sébastien Motsch, Arizona State University
Lorenzo Pareschi, Università degli Studi di Ferrara
Laure Saint-Raymond, Université Pierre et Marie Curie
Giuseppe Toscani, Università di Pavia
Yao Yao, Georgia Institute of Technology



More information and the link to the registration can be found on
https://www.math.ethz.ch/fim/conferences/hydrodynamics.html

FIM
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