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| Tuesday, November 1 | Transport Phenomena in Collective Dynamics: From Micro to Social Hydrodynamics ETH Zurich, HG G19.1 |
| 9:00 - 9:45 | REGISTRATION (HG G69) |
| MORNING SESSION | Chair: Eitan Tadmor (University of Maryland and ETH-ITS) |
| 9:45 - 10:00 | Eitan Tadmor (Ki-Net, University of Maryland) Tristan Rivière (FIM, ETH Zurich) <i>Welcoming Remarks</i> |
| 10:00 - 10:45 | François Golse (École Polytechnique) On the mean-field and semi-classical limit of the quantum N-body problem |
| 10:45 - 11:30 | Camillo De Lellis (University of Zurich) The Onsager's theorem |
| 11:30 - 12:00 | COFFEE BREAK (HG G69) |
| 12:00 - 12:45 | Guido De Philippis (SISSA) BV estimates in optimal transport and applications to crowd motion |
| 12:45 - 2:15 | LUNCH |
| AFTERNOON SESSION | Chair: Remi Abgrall (University of Zurich) |
| 2:15 - 3:00 | Ilya Karlin (ETH Zurich) The fittest survive: adaptive lattice Boltzmann models for fluid dynamics |
| 3:00 - 3:30 | COFFEE BREAK (HG G69) |
| 3:30 - 4:15 | Lorenzo Pareschi (University of Ferrara) Numerical methods for kinetic equations of emerging collective phenomena |
| 4:15 - 5:00 | Francis Filbet (Paul Sabatier University, Toulouse III) Modelling and particle methods for collision avoidance models |

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| Wednesday, November 2 | Transport Phenomena in Collective Dynamics: From Micro to Social Hydrodynamics ETH Zurich, HG G19.1 |
| 9:30 - 10:00 | COFFEE (HG G69) |
| MORNING SESSION | Chair: Gianluca Crippa (University of Basel) |
| 10:00 - 10:45 | Pierre Degond (Imperial College London) Metric versus topologic interactions |
| 10:45 - 11:30 | Alexis Vasseur (UT Austin) Recent results on the 3D quasi-geostrophic equation |
| 11:30 - 12:00 | COFFEE BREAK (HG G43) |
| 12:00 - 12:45 | Rinaldo Colombo (University of Brescia) Nonlocal balance laws in the modeling of collective phenomena |
| 12:45 - 2:15 | LUNCH |
| AFTERNOON SESSION | Chair: Michael Struwe (ETH Zurich) |
| 2:15 - 3:00 | José Carrillo (Imperial College London) Hydrodynamic models with attractive-repulsive and alignment effects |
| 3:00 - 3:30 | COFFEE BREAK (HG G43) |
| 3:30 - 4:15 | Alina Chertock (North Carolina State University) Asymptotic-preserving simulations for kinetic models of chemotaxis |
| 4:15 - 5:00 | Govind Menon (Brown University) Kinetic models for grain boundary coarsening |
| | EVENING ACTIVITIES |
| 7:00 - 10:00 | Conference Dinner at Restaurant R21, Hotel Zürichberg Apero (19:00-19:30) Dinner (19:30-22:00) |

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| Thursday, November 3 | Transport Phenomena in Collective Dynamics: From Micro to Social Hydrodynamics ETH Zurich, HG G19.1 |
| 9:30 - 10:00 | COFFEE (HG G69) |
| MORNING SESSION | Chair: Thomas Kappeler (University of Zurich) |
| 10:00 - 10:30 | Sara Merino Aceituno (Imperial College London) A new flocking model through body attitude coordination |
| 10:30 - 11:00 | Sébastien Motsch (Arizona State University) Emergence of flocking and consensus |
| 11:00 - 11:30 | COFFEE BREAK (HG G43) |
| 11:30 - 12:15 | Iain Couzin (Max Planck Institute for Ornithology and University of Konstanz) Collective sensing and decision-making in animal groups: from fish schools to primate societies |
| 12:15 - 12:45 | Dan Gorbonos (Weizmann Institute of Science) Swarming using adaptive long-range interactions |
| 12:45 - 2:00 | LUNCH |
| AFTERNOON SESSION | Chair: Siddhartha Mishra (ETH Zurich) |
| 2:00 (not 2:15) - 2:30 | Maria Colombo (ETH Zurich) Nonlocal-to-local limit of conservation laws |
| 2:30 - 3:00 | Yao Yao (Georgia Tech) Long time behavior of solutions to the 2D Keller-Segel equation with degenerate diffusion |
| 3:00 - 3:30 | COFFEE BREAK (HG G43) |
| 3:30 - 4:15 | Laure Saint-Raymond (École Normale Supérieure) Motion of a big particle in a rarefied gas close to equilibrium |
| 4:15 - 5:00 | Alexander Shnirelman (Concordia University) On the collective dynamics of a vortices in 2-dimensional hydrodynamics |

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| Friday, November 4 | Transport Phenomena in Collective Dynamics: From Micro to Social Hydrodynamics ETH Zurich, HG G19.1 |
| 9:30 - 10:00 | COFFEE (HG G69) |
| MORNING SESSION | Chair: Tristan Rivière (ETH Zurich) |
| 10:00 - 10:45 | Qiang Du (Columbia University) Nonlocal models with a finite range of nonlocal interactions |
| 10:45 - 11:30 | Alessio Figalli (ETH Zurich) The parabolic fractional obstacle problem |
| 11:30 - 12:00 | COFFEE BREAK (HG G43) |
| 12:00 - 12:45 | Yann Brenier (École Polytechnique) Emergence of collective dynamics from a purely stochastic origin |
| 12:45 -13:00 | CLOSING |