

Workshop “Fields and Particles in Turbulence” Rome 13-14 February 2020

Piazzale Aldo Moro 7, CNR, sala Bisogno

Thursday 13/02

14:00 Welcome & Presentation

14:10 Andrea Mazzino (Univ. Genova) “Flowing fibers in fluids: toward the 'Fiber Tracking Velocimetry'.”

14:30 Andrea Puglisi (Univ. Roma La Sapienza) “Collective motion in fluidized granular matter.”

14:50 Alessandro Sozza (CNR Roma) “Dusty Kolmogorov flow.”

15:10 Francesco De Vita (Univ. Torino) “On the effect of coalescence on the rheology of emulsions.”

15:30 Coffee break

16:00 Livio Nicola Carenza (Univ. Bari) “Multiscale control of active emulsion dynamics.”

16:20 Isabella Petrelli (Univ. Bari) “Phase coexistence in active dumbbells systems.”

16:40 Francesca Pelusi (Univ. Roma Tor Vergata) “Avalanche statistics during coarsening dynamics of biphasic systems.”

17:00 Andrea Scagliarini (CNR Roma) “Modelling sea ice and melt ponds evolution: sensitivity to microscale heat transfer mechanisms.”

17:20 Discussions

20:00 Social Dinner

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Friday 14/02

09:00 Luca Biferale (Univ. Roma Tor Vergata) “Optimal Navigation in Complex Flows.”

09:20 Fabio Bonaccorso (Univ. Roma Tor Vergata) “Machine learning for rotating turbulent flows.”

09:40 Alessandra S. Lanotte (CNR, Lecce) “Vortex lattices in polariton fluids.”

10:00 Daniele Sanvitto (CNR Lecce) “Physical implementation of an artificial neural network in an exciton-polariton platform.”

10.20 coffee break

10:50 Adriano Barra (Univ. Salento) “A rationale of information processing in shallow neural networks.”

11:10 Francesco Toselli (Univ. Torino) “Effects of rotation on the bulk turbulent convection.”

11.30 Fabio Gugiletta (Univ. Roma Tor Vergata) “Mesoscale simulations of transient Red Blood Cell dynamics.”

11.50 Matteo Borgnino (Univ. Torino) “Gyrotactic swimmers in turbulence: shape effects and role of the large-scale flow.”

12.10 Discussions & Conclusions

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List of Participants:

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