

Active Particles, Volume 2

Advances in Theory, Models, and Applications

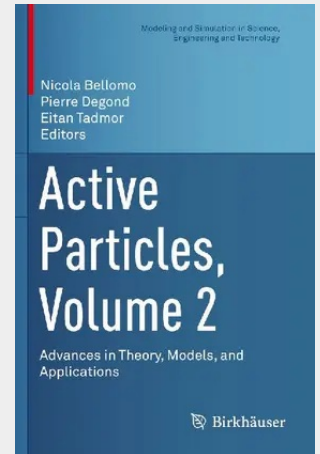
This volume compiles eight recent surveys that present state-of-the-art results in the field of active matter at different scales, modeled by agent-based, kinetic, and hydrodynamic descriptions. Following the previously published volume, these chapters were written by leading experts in the field and accurately reflect the diversity of subject matter in theory and applications. Several mathematical tools are employed throughout the volume, including analysis of nonlinear PDEs, network theory, mean field approximations, control theory, and flocking analysis. The book also covers a wide range of applications, including:

- Biological network formation
- Social systems
- Control theory of sparse systems
- Dynamics of swarming and flocking systems
- Stochastic particles and mean field approximations

Mathematicians and other members of the scientific community interested in active matter and its many applications will find this volume to be a timely, authoritative, and valuable resource.

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