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Nota di contenuto	1 Consistency of Semi-supervised Learning, Stochastic Tug-of-War Games, and the p-Laplacian -- 2 Discrete Minimizers of the Interaction Energy in Collective Behavior -- 3 Large-Population Limits of Non-Exchangeable Particle Systems -- 4 Models of Animal Behavior as Active Particle Systems with Nonreciprocal Interactions -- 5 Bayesian Sampling Using Interacting Particles -- 6 Aggregation-Diffusion Phenomena -- 7 Conservative Semi-Lagrangian Methods for Kinetic Equations -- 8 Large Population Limit of Interacting Population

	Dynamics via Generalized Gradient Structures -- 9 Adjoint Monte Carlo Method.
Sommario/riassunto	This edited volume collects nine surveys that present the state-of-the-art in modeling, qualitative analysis, and simulation of active particles, focusing on specific applications in the natural sciences. As in the preceding Active Particles volumes, it blends diverse applications that demonstrate the interdisciplinary nature of the subject and the various mathematical tools available. Contributions were selected with the aim of covering a variety of viewpoints, from modeling the interactions in collective dynamics of animals and in population dynamics; through neural-networks, semi-supervised learning, and Monte Carlo methods in optimization; to kinetic and continuum theories with applications to aggregations and birth-and-death processes. 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.