1. Record Nr. UNINA9910346885903321 Autore Scarfone Antonio Titolo New Trends in Statistical Physics of Complex Systems / Antonio Scarfone Pubbl/distr/stampa MDPI - Multidisciplinary Digital Publishing Institute, 2019 Basel, Switzerland:,: MDPI,, 2019 **ISBN** 9783038974703 3038974706 Descrizione fisica 1 electronic resource (202 p.) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto A topical research activity in statistical physics concerns the study of complex and disordered systems. Generally, these systems are characterized by an elevated level of interconnection and interaction between the parts so that they give rise to a rich structure in the phase space that self-organizes under the control of internal non-linear dynamics. These emergent collective dynamics confer new behaviours to the whole system that are no longer the direct consequence of the properties of the single parts, but rather characterize the whole system as a new entity with its own features, giving rise to the birth of new phenomenologies. As is highlighted in this collection of papers, the methodologies of statistical physics have become very promising in understanding these new phenomena. This volume groups together 12 research works showing the use of typical tools developed within the framework of statistical mechanics, in non-linear kinetic and information geometry, to investigate emerging features in complex

physical and physical-like systems.