Record Nr. UNINA9910827249803321 New trends in geometry: their role in the natural and life sciences // **Titolo** Claudio Bartocci, Luciano Boi, Corrado Sinigaglia, editors Pubbl/distr/stampa London, : Imperial College Press, 2011 **ISBN** 1-283-43317-6 9786613433176 1-84816-643-5 Edizione [1st ed.] Descrizione fisica 1 online resource (329 p.) Altri autori (Persone) BartocciClaudio BooiLuciano SinigagliaCorrado Disciplina 516 Soggetti Geometry Natural history - Mathematical models Life sciences - Mathematical models Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto pt. 1. Geometry, theoretical physics and cosmology -- pt. 2. The problem of space in neurosciences -- pt. 3. Geometrical methods in the biological sciences. Sommario/riassunto This volume focuses on the interactions between mathematics, physics, biology and neuroscience by exploring new geometrical and topological modelling in these fields. Among the highlights are the central roles played by multilevel and scale-change approaches in these disciplines. The integration of mathematics with physics, as well as molecular and cell biology and the neurosciences, will constitute the new frontier of

21st century science, where breakthroughs are more likely to span

across traditional disciplines.