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Nota di contenuto	- A Topological Approach to Vortex Knots and Links -- From Knot Invariants to Knot Dynamics -- Multi-Valued Potentials in Topological Field Theory -- Excitable and Magnetic Knots -- Spiral Waves in Excitable Media: Seifert Framing and Helicity -- Designing Knotted Fields in Light and Electromagnetism -- Tangled Vortex Lines: Dynamics, Geometry and Topology of Quantum Turbulence -- An Introduction to Knotplot -- Using the Homflypt Polynomial to Compute Knot Types.
Sommario/riassunto	This book provides a remarkable collection of contributions written by some of the most accredited world experts in the modern area of Knotted Fields. Scope of the book is to provide an updated view of some of the key aspects of contemporary research, with the purpose to cover basic concepts and techniques commonly used in the context of Knotted Fields. The material is presented to help the interested reader to become familiar with the fundamentals, from fluid flows to electromagnetism, from knot theory to numerical visualization, while presenting the new ideas and results in an accessible way to beginners and young researchers. No advanced knowledge is required, and at the end of each chapter, key references are provided to offer further

information on particular topics of interest. All those keen on modern applications of topological techniques to the study of knotted fields in mathematical physics will find here a valuable and unique source of information. The work will be of interest to many researchers in the field.