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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Introduction -- Classical and Quantum Ideal Gases -- Gross-Pitaevskii model of the condensate -- Waves and Solitons -- Vortices and Rotation.
Sommario/riassunto	The aim of this primer is to cover the essential theoretical information, quickly and concisely, in order to enable senior undergraduate and beginning graduate students to tackle projects in topical research areas of quantum fluids, for example, solitons, vortices and collective modes. The selection of the material, both regarding the content and level of presentation, draws on the authors analysis of the success of relevant research projects with newcomers to the field, as well as of the students feedback from many taught and self-study courses on the subject matter. Starting with a brief historical overview, this text covers particle statistics, weakly interacting condensates and their dynamics and finally superfluid helium and quantum turbulence. At the end of each chapter (apart from the first) there are some exercises. Detailed

solutions can be made available to instructors upon request to the authors. .