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Nota di contenuto	Preface -- Primal and Dual Problems -- One-Dimensional Issues -- L^1 and L^infinity Theory -- Minimal Flows -- Wasserstein Spaces -- Numerical Methods -- Functionals over Probabilities -- Gradient Flows -- Exercises -- References -- Index. .
Sommario/riassunto	This monograph presents a rigorous mathematical introduction to optimal transport as a variational problem, its use in modeling various phenomena, and its connections with partial differential equations. Its main goal is to provide the reader with the techniques necessary to understand the current research in optimal transport and the tools which are most useful for its applications. Full proofs are used to illustrate mathematical concepts and each chapter includes a section that discusses applications of optimal transport to various areas, such as economics, finance, potential games, image processing and fluid dynamics. Several topics are covered that have never been previously in

books on this subject, such as the Knothe transport, the properties of functionals on measures, the Dacorogna-Moser flow, the formulation through minimal flows with prescribed divergence formulation, the case of the supremal cost, and the most classical numerical methods. Graduate students and researchers in both pure and applied mathematics interested in the problems and applications of optimal transport will find this to be an invaluable resource.