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Note generali	Includes index.
Nota di contenuto	Introduction -- Preliminaries -- Convex and Lower-semicontinuous Functions -- The Subdifferential of a Convex Function -- Evolution Equations -- Distributions -- Tempered Distributions -- Differential Equations in Distributions -- Sobolev Spaces -- Variational Problems -- On Some Spaces of Distributions -- On Some Dierential Operators.
Sommario/riassunto	This book presents important contributions to modern theories concerning the distribution theory applied to convex analysis (convex functions, functions of lower semicontinuity, the subdifferential of a convex function). The authors prove several basic results in distribution theory and present ordinary differential equations and partial differential equations by providing generalized solutions. In addition,

the book deals with Sobolev spaces, which presents aspects related to variation problems, such as the Stokes system, the elasticity system and the plate equation. The authors also include approximate formulations of variation problems, such as the Galerkin method or the finite element method. The book is accessible to all scientists, and it is especially useful for those who use mathematics to solve engineering and physics problems. The authors have avoided concepts and results contained in other books in order to keep the book comprehensive. Furthermore, they do not present concrete simplified models and pay maximal attention to scientific rigor.