

1. Record Nr.	UNINA9910146305403321
Autore	Braides Andrea
Titolo	Approximation of free-discontinuity problems // Andrea Braides
Pubbl/distr/stampa	Berlin, Germany ; ; New York, New York : , : Springer, , [1998] ©1998
ISBN	3-540-68714-9
Edizione	[1st ed. 1998.]
Descrizione fisica	1 online resource (XIV, 154 p.)
Collana	Lecture Notes in Mathematics, , 0075-8434 ; ; 1694
Disciplina	515/.64
Soggetti	Functions of bounded variation Convergence Calculus of variations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references (pages [145]-148) and index.
Nota di contenuto	Functions of bounded variation -- Special functions of bounded variation -- Examples of approximation -- A general approach to approximation -- Non-local approximation.
Sommario/riassunto	Functionals involving both volume and surface energies have a number of applications ranging from Computer Vision to Fracture Mechanics. In order to tackle numerical and dynamical problems linked to such functionals many approximations by functionals defined on smooth functions have been proposed (using high-order singular perturbations, finite-difference or non-local energies, etc.) The purpose of this book is to present a global approach to these approximations using the theory of gamma-convergence and of special functions of bounded variation. The book is directed to PhD students and researchers in calculus of variations, interested in approximation problems with possible applications.