Record Nr. UNISALENTO991003324259707536 Autore Braides, Andrea Titolo Local Minimization, Variational Evolution and [Gamma]-Convergence [e-book] / by Andrea Braides **ISBN** 9783319019826 Descrizione fisica 1 online resource (xi, 174 p. 42 : ill.) Lecture Notes in Mathematics, 1617-9692; 2094 Collana Classificazione AMS 49J45 AMS 74Q10 AMS 49J40 AMS 74Q05 Disciplina 519 Soggetti Global analysis (Mathematics) Functional analysis Differential equations, Partial Mathematical optimization Lingua di pubblicazione Inglese **Formato** Software Livello bibliografico Monografia Nota di contenuto Introduction; Global minimization; Parameterized motion driven by global minimization; Local minimization as a selection criterion; Convergence of local minimizers; Small-scale stability; Minimizing movements; Minimizing movements along a sequence of functionals -- Geometric minimizing movements : Different time scales : Stability theorems; Index Sommario/riassunto This book addresses new questions related to the asymptotic description of converging energies from the standpoint of local minimization and variational evolution. It explores the links between Gamma-limits, quasistatic evolution, gradient flows and stable points. raising new questions and proposing new techniques. These include the definition of effective energies that maintain the pattern of local minima, the introduction of notions of convergence of energies compatible with stable points, the computation of homogenized motions at critical time-scales through the definition of minimizing movement along a sequence of energies, the use of scaled energies to

study long-term behavior or backward motion for variational

evolutions. The notions explored in the book are linked to existing findings for gradient flows, energetic solutions and local minimizers, for which some generalizations are also proposed.