Record Nr. UNISA996466815203316 Heavy-Ion Collisions [[electronic resource]]: Proceedings of the **Titolo** International Summer School Held in La Rábida (Huelva), Spain, June 7-18, 1982 / / edited by G. Madurga, M. Lozano Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa , 1982 **ISBN** 3-540-39525-3 Edizione [1st ed. 1982.] 1 online resource (VI, 433 p. 23 illus.) Descrizione fisica Lecture Notes in Physics, , 0075-8450;; 168 Collana 539.7092 Disciplina Soggetti **Nuclear physics** Heavy ions Nuclear fusion Nuclear Physics, Heavy Ions, Hadrons **Nuclear Fusion** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di contenuto Opening talk -- Calculation of effective interactions -- Potential model

description of heavy ion scattering using spline techniques -- Folding models for elastic and inelastic scattering -- Relations between the simultaneous and sequential transfer of two nucleons -- Polarization phenomena in heavy ion transfer reactions -- Nuclear charge and matter distributions -- What do we learn from self-consistent models about nuclear density distributions? -- Probing the nuclear structure with heavy-ion reactions -- Different regines of dissipative collisions -- Charge equilibration in deep-inelastic peripheral collisions --Neutron-proton asymmetry and fast fission: Two extreme time evolutions in dissipative heavy ion reactions -- Neutron-proton asymmetry -- Fast fission phenomenon -- Pre-equilibrium processes in nuclear reactions -- Light nuclei far from stability -- Direct proton decay of 147 Tm -- Description of high spin states -- Shape coexistence and a new region of strong deformation in nuclei far from stability -- New directions in studies of nuclei far from stability with heavy ions -- Multiple discontinuities of the moment of inertia at high spin -- Recent results on nuclei far from stability in the mass region a? 70 -- Fusion and compound nuclei decay for light and intermediatemass systems: 24Mg, 28Si + 12C; 24Mg + 24,26Mg; 28Si + 24Mg, 28,29,30Si -- Nuclear 'molecular' states -- The excitation and decay of isoscalar giant resonances -- Heavy ions and giant resonances -- The width and decay-properties of giant resonances -- Spectroscopy of superheavy quasimolecules and quasiatoms.