Record Nr. UNINA9910830464703321 Autore Valier-Brasier Tony Titolo Elastic waves in solids 2: radiation, scattering, generation / / Tony Valier-Brasier, Daniel Royer Pubbl/distr/stampa Hoboken, New Jersey:,: John Wiley and Sons Inc,, [2022] ©2022 **ISBN** 1-119-98846-2 1-119-98844-6 Descrizione fisica 1 online resource (236 pages) Disciplina 531.1133 Soggetti Acoustic surface waves Signal processing Elastic waves Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Front Matter -- Radiation of Elastic Waves -- Scattering of Elastic Waves -- Generation and Detection -- Developments in Cylindrical and Spherical Harmonics -- Matrix Representation of a Dioptric System --References -- Index -- Other titles from iSTE in Waves Sommario/riassunto Elastic waves are used in fields as diverse as the non-destructive evaluation of materials, medicine, seismology and telecommunications. Elastic Waves in Solids 2 analyzes the radiation, scattering and generation of these waves. It studies the emission of bulk or surface waves from sources localized on the surface of an isotropic or anisotropic solid. It then examines the scattering of a longitudinal or transverse elastic wave by one or more cylindrical or spherical heterogeneities. Finally, it explores the methods and devices used to generate and detect elastic waves, using the piezoelectric effect or the interaction with a laser beam. Accompanying figures illustrate these properties, and the text provides the orders of magnitude of some characteristic parameters. This book is intended for students completing a master's degree in acoustics, mechanics, geophysics or

engineering, as well as teachers and researchers in these disciplines.