

1. Record Nr.	UNINA9910450401303321
Autore	Harris John G.
Titolo	Linear elastic waves / / John G. Harris [[electronic resource]]
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2001
ISBN	1-107-11667-8 9786612389047 1-282-38904-1 0-511-64285-7 0-511-04041-5 0-511-15490-9 0-511-55625-X 0-511-75541-4 0-511-05196-4
Descrizione fisica	1 online resource (xv, 162 pages) : digital, PDF file(s)
Collana	Cambridge texts in applied mathematics ; ; 26
Disciplina	531/.1133
Soggetti	Elastic waves
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Half-title; Series-title; Title; Copyright; Dedication; Contents; Preface; 1 Simple Wave Solutions; 2 Kinematical Descriptions of Waves; 3 Reflection, Refraction, and Interfacial Waves; 4 Green's Tensor and Integral Representations; 5 Radiation and Diffraction; 6 Guided Waves and Dispersion; Index
Sommario/riassunto	Wave propagation and scattering are among the most fundamental processes that we use to comprehend the world around us. While these processes are often very complex, one way to begin to understand them is to study wave propagation in the linear approximation. This is a book describing such propagation using, as a context, the equations of elasticity. Two unifying themes are used. The first is that an understanding of plane wave interactions is fundamental to understanding more complex wave interactions. The second is that waves are best understood in an asymptotic approximation where they are free of the complications of their excitation and are governed

primarily by their propagation environments. The topics covered include reflection, refraction, the propagation of interfacial waves, integral representations, radiation and diffraction, and propagation in closed and open waveguides. Linear Elastic Waves is an advanced level textbook directed at applied mathematicians, seismologists, and engineers.

---