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Titolo	Wave Motion as Inquiry : The Physics and Applications of Light and Sound / / by Fernando Espinoza
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ISBN	3-319-45758-6
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XI, 232 p. 201 illus., 176 illus. in color.)
Disciplina	531.1133
Soggetti	Acoustics Optics Electrodynamics Classical Electrodynamics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Introduction to wave phenomena -- General characteristics of waves -- Reflection. p- Refraction -- Interference and standing waves -- Diffraction -- Polarization -- Changes in Properties of Waves. - Wave propagation and intensity variations -- Waves and sensory perception -- Forensic Applications. - Technological applications.
Sommario/riassunto	This undergraduate textbook on the physics of wave motion in optics and acoustics avoids presenting the topic abstractly in order to emphasize real-world examples. While providing the needed scientific context, Dr. Espinoza also relies on students' own experience to guide their learning. The book's exercises and labs strongly emphasize this inquiry-based approach. A strength of inquiry-based courses is that the students maintain a higher level of engagement when they are studying a topic that they have an internal motivation to know, rather than solely following the directives of a professor. "Wave Motion" takes those threads of engagement and interest and weaves them into a coherent picture of wave phenomena. It demystifies key components of life around us--in music, in technology, and indeed in everything we perceive--even for those without a strong math background, who might otherwise have trouble approaching the subject matter.