1.	Record Nr.	UNINA9910146313403321
	Autore	Croisille Jean-Pierre <1961->
	Titolo	Diffraction by an immersed elastic wedge / / Jean-Pierre Croisille, Gilles Lebeau
	Pubbl/distr/stampa	Berlin, Germany ; ; New York, New York : , : Springer, , [1999] ©1999
	ISBN	3-540-46698-3
	Edizione	[1st ed. 1999.]
	Descrizione fisica	1 online resource (VIII, 140 p.)
	Collana	Lecture Notes in Mathematics, , 0075-8434 ; ; 1723
	Disciplina	518
	Soggetti	Waves - Diffraction Wedges Wave-motion, Theory of
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Bibliographic Level Mode of Issuance: Monograph
	Nota di bibliografia	Includes bibliographical references (pages [133]-134) and index.
	Nota di contenuto	Notation and results -- The spectral function -- Proofs of the results -- Numerical algorithm -- Numerical results.
	Sommario/riassunto	This monograph presents the mathematical description and numerical computation of the high-frequency diffracted wave by an immersed elastic wave with normal incidence. The mathematical analysis is based on the explicit description of the principal symbol of the pseudo-differential operator connected with the coupled linear problem elasticity/fluid by the wedge interface. This description is subsequently used to derive an accurate numerical computation of diffraction diagrams for different incoming waves in the fluid, and for different wedge angles. The method can be applied to any problem of coupled waves by a wedge interface. This work is of interest for any researcher concerned with high frequency wave scattering, especially mathematicians, acousticians, engineers.