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Nota di contenuto	Preface; CONTENTS; Wave Propagation Theory; Uniformly Asymptotic Solutions for Pseudodifferential Equations with Singular Integral Operators; The Kirchhoff-Helmholtz Integral Pair; Analysis and Processing of Received Signals in Boreholes; Informational Capacity of Acoustic Measurements; Resonances of Acoustic Waves Interacting with an Elastic Seabed; Modeled Velocity and Reflectivity Properties of Anisotropic Hydrated Sediments; Reflection/Transmission Coefficients at a Plane Interface in Dissipative and Nondissipative Isotropic Media: A Comparison Analysis of the Reflection and Transmission Coefficients in Three-Phase Sandstone ReservoirsFractional Diffusive Waves; Acoustic Excitation of Scholte-Stoneley and Lamb Waves on a Reinforced Cylindrical Shell; On the Adiabaticity of Acoustic Propagation Through Nongradual Ocean Structures; Ferromagnets and Kelvin's Medium: Basic Equations and Wave Processes; Propagation of Ultrasonic Waves in Nonlinear Multilayered Media; Optimal Model for the Diffraction Effect in the Ultrasonic Field of Piston Transducers; Oblique Acoustic Axes in

Trigonal Crystals

Acoustic Time Series Variability and Time Reversal Mirror Defocusing Due To Cumulative Effects Of Water Column VariabilityNumerical and Experimental Time-Reversal of Acoustic Waves in Random Media; Fluctuations of Elastic Waves Due to Random Scattering from Inclusions; Numerical Study of the Wave Instability Problem with the Effect of the Transverse Velocity Component; Sound Propagation Vibrations and Noise; Airborne Acoustics of Explosive Volcanic Eruptions; Sound Generation of Interacting Perturbed Vortex Rings
A Wide-Angle Parabolic Equation for Acoustic Waves in Inhomogeneous Moving Media: Applications to Atmospheric Sound PropagationAcoustics of Kinematically Complex Shear Flows; Ultrasound Propagation Through a Rotational Flow: Numerical Methods Compared to Experiments; Wave Propagation on an Elastic Beam Traveling in a Tube: Linear Theory of Aerodynamic Loading; On the Vibration of Membrane Partially Protruding Above the Surface of Liquid; Vibrational Analysis of Ships with Coupled Finite and Boundary Elements; Transverse Resonant Oscillations in Acoustic Ducts
Noise Shielding by Simple Barriers: Comparison Between the Performance of Spherical and Line Sound SourcesWave Propagation Through Hollow Bodies and Noise Reduction; Generation of Ground Elastic Waves by Road Vehicles; Underwater Acoustics; Broadband Matched-Field Localization Performance in Uncertain Environments Using a Short Array; A Frequency Domain Inversion Method Applied to Oblique Reflected Signals from a Water-Sediment Interface; Application of a Three-Dimensional Two-Way Parabolic Equation Model for Reconstructing Images of Underwater Targets
Determination of a Buried Object in a Two-Layered Shallow Ocean

Sommario/riassunto

The ICTCA conference provides an interdisciplinary forum for active researchers in academia and industry who are of varying backgrounds to discuss the state-of-the-art developments and results in theoretical and computational acoustics and related topics. The papers presented at the meeting cover acoustical problems of common interest across disciplines and their accurate mathematical and numerical modelling. The present book collects papers that were presented at the 4th meeting and printed in the Journal of Computational Acoustics . There are about 120 full research articles on various subje