Propagation of SH Waves in Two Micro-morphic Half-Space in Contact:

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Abstract:

This paper investigates the propagation of SH (Shear Horizontal) waves in two micromorphic half-spaces in contact. The period equation is derived, revealing three additional waves not present in classical elasticity. The study examines the effects of micromorphic properties on wave propagation, providing insights into the behavior of SH waves in non-classical materials.

Key Terms: Micromorphic elasticity, SH waves, Wave propagation, Geophysical applications,

Introduction:

Classical elasticity neglects the effects of couple distribution on mechanical interactions within continua. Eringen's micropolar and micromorphic theories address these limitations. This paper investigates SH wave propagation in two micromorphic elastic half-spaces, relevant to geophysical applications.