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### Shear horizontal waves in composite materials: Behavior under rotation and initial stress (Article)

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The main scope of this paper is to present in a simple and concise way a mathematical model of composite materials able to describe the propagation of shear horizontal waves in the case where composite is rotating and subjected to an initial stress. This work is aimed at the relevant possibility to apply the obtained results for the establishment of high-achievement applications of piezoelectric and semiconductor composites and surface acoustic waves devices. We conclude by analyzing numerical computations in which the influence of the rotation, initial stress and electromagnetic boundary conditions are graphically observed. © The Author(s) 2017.

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Acoustic surface wave devices Acoustic waves Composite materials Piezoelectric materials Piezoelectricity Semiconductor devices Semiconductor materials

Engineering uncontrolled terms

Electromagnetic boundary conditions Initial stress Numerical computations Semiconductor composite Shear horizontal waves Surface acoustic waves

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