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Frictional Slip Between a Gradient Non-Homogeneous Layer and a Half-Space in Anti-Plane Elastic Wawe Field

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Frictional slip between a layer and a half space caused by SH pulse is examined. Both layer and half-space are composed of the gradient non-homogeneous medium, and the interface between them is the unilateral interface with Coulombs friction. When the shear elastic modulus and the density of medium vary by the second power in the gradient direction of medium, the analytical solution of the problem is found. Through the numerical calculations for the cases of the incidence of a parabolic pulse, some characteristics of the interaction of the frictional interface between a gradient non-homogeneous layer and a half-space are revealed.

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