
On the resonant regime of a transient moving load problem for an elastic half-space

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A transient problem of a moving concentrated force along the surface of an elastic half-space is considered. The resonant regime is analyzed, when the speed of the load coincides with that of the Rayleigh wave speed. The near-field solution is constructed through the asymptotic model for the Rayleigh wave. Analysis of the hyperbolic equation gives solution at the surface, serving as a Dirichlet type boundary condition for the elliptic equation governing the decay over the interior.

Keywords: *moving load, transient, asymptotic model, Rayleigh wave, harmonic function.*

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