

ON A CUSPED ELASTIC SOLID-FLUID INTERACTION PROBLEM

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Abstract

Admissible static and dynamical problems are investigated for a cusped plate. The setting of boundary conditions at the plates ends depends on the geometry of sharpenings of plates ends, while the setting of initial conditions is independent of them. Interaction problem between an elastic cusped plate and ideal incompressible fluid is studied.

Key words and phrases: solid-fluid interaction, cusped plate, degenerate ordinary differential equation, degenerate hyperbolic equation, boundary value problems, vibration.

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