

## Sloshing Response of Liquid in Prismatic Container under Oscillation

**Authors :** P. R. Maiti, S. K. Bhattacharyya

**Abstract :** Sloshing is a physical phenomenon characterized by the oscillation of unrestrained free surface of liquid in a partially liquid filled container subjected to external excitation. Determination of sloshing frequency in container is important to avoid resonance condition of the system. The complex behavior of the free surface movement and its combined mode of vibration make difficulty for exact analysis of sloshing. In the present study, numerical analysis is carried out for a partially liquid filled tank under external forces. Boundary element approach is used to formulate the sloshing problem in two - dimensional prismatic container with potential flow. Effort has been made to find slosh response for two dimensional problems in partially liquid filled prismatic container.

**Keywords :** sloshing, boundary element method, prismatic container, oscillation

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