## The Effects of a Thin Liquid Layer on the Hydrodynamic Machine Rotor

Authors : Jaroslav Krutil, František Pochylý, Simona Fialová, Vladimír Habán

**Abstract :** A mathematical model of the additional effects of the liquid in the hydrodynamic gap is presented in the paper. An in-compressible viscous fluid is considered. Based on computational modeling are determined the matrices of mass, stiffness and damping. The mathematical model is experimentally verified.

**Keywords :** computational modeling, mathematical model, hydrodynamic gap, matrices of mass, stiffness and damping **Conference Title :** ICFMHTT 2015 : International Conference on Fluid Mechanics, Heat Transfer and Thermodynamics **Conference Location :** Copenhagen, Denmark

Conference Dates : June 11-12, 2015