

STABILITY OF TWO-PHASE FLOW SUBJECT TO STOKES AND
ARCHIMEDES FORCES

Abstract

Stability of two-phase flow in the flat channel is studied based on the Rakhmatulin-Nigmatulin multiphase flow equations. High fidelity spectral method allows to determine all of own value spectrum is used.

It is shown, that the flow is unstable when the value of relaxation time is small and stabilize when the value grows. It is established, that in some interval of relaxation time flow is more stable.