

**Irina Denisova**

*Global solvability of a problem on the motion of two immiscible capillary fluids*

It is a common work with Prof. V.A. Solonnikov.

We deal with the motion of two incompressible fluids in a container, one of which is inside another. We take surface tension into account. We prove that this problem is uniquely solvable in an infinite time interval provided the initial velocity of the liquids is small and an initial configuration of the inner fluid is close to a ball. Moreover, we show that the velocity decays exponentially at infinity with respect to time and that the interface between the fluids tends to a sphere of the certain radius. The proof is based on the exponential estimate of a generalized energy and on a local existence theorem of the problem in anisotropic Hölder spaces.