

On self-similar solutions to a multi-phase Stefan problem for the heat equation in a moving ray

Evgeny Panov

Yaroslav-the-Wise Novgorod State University

evpanov@yandex.ru

In the talk, we will discuss a multi-phase Stefan problem for the heat equation on a moving ray $x > \alpha\sqrt{t}$ with the Dirichlet or Neumann conditions on the boundary $x = \alpha\sqrt{t}$. A variational description of self-similar solutions is proposed, on the basis of which the results on the existence and uniqueness of the solution are proved. The case of an infinite number of phase transitions is also considered.