6th Symposium on Analysis and PDEs

Purdue University, June 1–4, 2015

Nikola Kamburov, University of Arizona   *June 3, 10:00–10:50am*

The Space of One-Phase Free Boundary Solutions in the Plane.

In joint work with David Jerison we study the compactness of the space of solutions to the one-phase free boundary problem in the disk that have simply-connected positive phase. In this talk I will present the classification of blow-up limits (namely, the limit is either the one-plane, the two-plane or the double hairpin solution discovered by Hauswirth, Helein and Pacard) and discuss how the result informs the characterization of the local structure of the free boundary.