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Beomjun Choi* (cbj521@math.columbia.edu) and **Panagiota Daskalopoulos**, Columbia University. *Evolution of non-compact hypersurface by inverse mean curvature.*

In this talk, we first introduce the inverse mean curvature flow and its well known application in the the proof of Riemannian Penrose inequality by Huisken and Ilmanen. Then we discuss our main result which addresses the existence and behavior of convex non-compact inverse mean curvature flow.

The key ingredient is a priori interior in time estimate on inverse mean curvature written in terms of the aperture of supporting cone at infinity. This is a joint work with P. Daskalopoulos and I will also briefly mention the recent work with P.-K. Hung concerning the evolution of singular hypersurfaces. (Received December 20, 2018)