

1116-VE-240 **Brian Allen*** (allen@math.utk.edu), 820 Red Saile Road, Knoxville, TN 37909. *Asymptotic Analysis of Non-Compact Inverse Mean Curvature Flow in Hyperbolic Space.*

Inverse Mean Curvature Flow (IMCF) is an important geometric evolution equation which has been used to prove the Riemannian Penrose Inequality in General Relativity as well as other important geometric inequalities. I will discuss my own work on non-compact IMCF in Hyperbolic space which is the first general look at IMCF for non-compact initial data. First we will describe a long time existence result for the flow when the initial hypersurface can be represented as a graph over a hyperplane. Then we will go on to discuss the asymptotic properties of the flow, convergence of the rescaled flow as well as applications to geometric inequalities. (Received August 17, 2015)