1062-53-156   **Longzhi Lin*** (`lzlin@math.jhu.edu`), Department of Mathematics, Johns Hopkins University, 3400 N Charles Street, Baltimore, MD 21218, and **Ling Xiao**. *Modified Mean Curvature Flow of Star-shaped Hypersurfaces in Hyperbolic Space.*

In this talk we will discuss the existence, uniqueness and convergence of the modified mean curvature flow (MMCF) of complete embedded star-shaped hypersurfaces in hyperbolic space with fixed prescribed asymptotic boundary at infinity. We shall see that this MMCF is the natural negative L^2-gradient flow of an energy functional. As a by-product, we recover the existence and uniqueness of smooth complete hypersurfaces of constant mean curvature in hyperbolic space with prescribed asymptotic boundary at infinity, which was first shown by Guan and Spruck. This is a joint work with Ling Xiao from Johns Hopkins University. (Received August 04, 2010)