1131-37-13 **Chris Connell*** (connell@indiana.edu), **Thang Nguyen** (tnguyen@nyu.edu) and **Ralf Spatzier** (spatzier@umich.edu). *Lower hyperbolic rank rigidity for quarter-pinched negatively curved manifolds.*

A Riemannian manifold $M$ has higher hyperbolic rank if every geodesic has a perpendicular Jacobi field making sectional curvature -1 with the geodesic. If in addition, the sectional curvatures of $M$ lie in the interval $[-1, -\frac{1}{4}]$, and $M$ is closed, we show that $M$ is a locally symmetric space of rank one. Similar rigidity results hold for the maximal lyapunov exponent of an ergodic invariant measure of full support. This partially extends work by Constantine for non-positive curvature. It also forms a partial converse to Hamenstädt's hyperbolic rank rigidity result for sectional curvatures $\leq -1$, and complements well-known results on Euclidean and spherical rank rigidity. (Received May 07, 2017)