

1102-57-259

**Jen Hom, Tye Lidman and Faramarz Vafaee\*** (vafaee@msu.edu). *Heegaard Floer theory and L-space knots.*

Heegaard Floer theory consists of a set of invariants of three- and four-dimensional manifolds. Three-manifolds with the simplest Heegaard Floer invariants are called L-spaces and the name stems from the fact that lens spaces are L-spaces. The primary focus of this talk will be on the question of which knots in the three-sphere admit L-space surgeries. We will also discuss about possible characterizations of L-spaces that do not reference Heegaard Floer homology. (Received July 29, 2014)