

1096-57-2119

**Faramarz Vafaee\*** (vafaee@msu.edu). *Heegaard Floer Homology and L-space Knots.*

Heegaard Floer theory consists of a set of invariants of three and four dimensional manifolds. One example of such invariants is the hat version of Heegaard Floer homology which is a Spin-c graded group. Lens spaces have the simplest Heegaard Floer homology, namely it is a rank one free group in each Spin-c structure. Any rational homology three sphere with this property is called an L-space. We pose a new family of knots(a subfamily of twisted torus knots) that admit some L-space surgeries. We also talk about different operations that one can perform on knots to obtain new knots admitting L-space surgeries. (Received September 17, 2013)