

1039-57-132

Yoav Moriah and **Eric Sedgwick*** (esedgwick@cs.depaul.edu), DePaul CTI - Suite 401, 243 S Wabash, Chicago, IL 60604. *The Heegaard structure of Dehn filled manifolds.*

We expect manifolds obtained by Dehn filling to inherit properties from the knot manifold. To what extent does that hold true for the Heegaard structure? We study four changes to the Heegaard structure that may occur after filling: 1) Heegaard genus decreases, 2) a new Heegaard surface is created, 3) a non-stabilized Heegaard surface destabilizes, and 4) two or more non-isotopic Heegaard surfaces become isotopic. We survey general results that give quite satisfactory restrictions to phenomena 1) and 2) and, in a parallel thread, give a complete classification of when all four phenomena occur when filling most torus knot exteriors. This latter thread yields sufficient (and perhaps necessary) conditions for the occurrence of phenomena 3) and 4). (Received March 10, 2008)