1007-57-168 **Peter S Ozsvath\*** (petero@math.berkeley.edu), Department of Mathematics, University of California at Berkeley, Berkeley, CA. Surgery formulas for Heegaard Floer homology and applications.

I will describe how Heegaard Floer homology groups transform under Dehn fillings of a knot in terms of its "knot Floer homology". This has applications to certain Dehn surgery questions for knots in the three-sphere. This material is joint work with Zoltan Szabo. (Received February 19, 2005)