1037-58-377   **Matthew Hedden*** (`mhedden@math.mit.edu`), 77 Massachusetts Avenue, Math Department, Building 2, Room 167, Cambridge, MA 02139. *On Floer homology and knots admitting lens space surgeries.*

J. Berge discovered a simple condition on a knot, K, in the three-sphere which ensures that Dehn surgery on K yields a lens space. It is an open conjecture, known as the Berge conjecture, that any knot on which one can perform surgery and obtain a lens space satisfies his condition. I will discuss a strategy, developed jointly with Ken Baker and Eli Grigsby by which the knot Floer homology invariants of Ozsvath, Szabo, and Rasmussen could be used to prove this conjecture. (Received February 06, 2008)