1116-57-2809 Neil R Hoffman* (nhoffman@ms.unimelb.edu.au), Nathan M Dunfield and Joan E Licata. Asymmetric knots with two cyclic surgeries.

The cyclic fillings of a hyperbolic manifold are of considerable interest. John Berge constructed a list of knots in S^3 that admit a non-trivial cyclic filling and the Berge conjecture states that this list is complete. A consequence of the Berge Conjecture is that all such knot complements admit an order two symmetry. While the natural generalization of the Berge Conjecture still provides a list of hyperbolic manifolds with two cyclic fillings, we show such a list is incomplete. Finally, this provides examples of L-spaces which are not the double branched covers of knots in S^3 . (Received September 22, 2015)