1060-57-156 **Daryl Cooper** (cooper@math.ucsb.edu) and **David Futer*** (dfuter@temple.edu), Philadelphia, PA 19122, and **Jessica S Purcell** (jpurcell@math.byu.edu). *Knots with long unknotting tunnels.*

Given a knot K in S^3, an unknotting tunnel for K is an arc τ, such that the complement of K and τ is a handlebody. Unknotting tunnels provide an important insight into the topology of both K and its complement. But how do they look geometrically? Is τ a geodesic in the hyperbolic metric, and how long is it? I will describe an explicit construction that gives knots in S^3 whose unknotting tunnels are arbitrarily long. This is joint work with Jessica Purcell and Daryl Cooper. (Received March 29, 2010)