1106-57-1518   **Dorothy Buck** and **Danielle O'Donnol*** (`odonnol@okstate.edu`). *Unknotting number one theta-curves and DNA replication.* Preliminary report.

A theta-curve is an embedded theta-graph. We are investigating unknotting number one theta-curves. This has immediate applications to questions about knotting that occurs during DNA replication. I will discuss our recent results on unknotting number one theta-curves and the unknotting numbers for prime theta-curves up to seven crossings. (Received September 13, 2014)