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**Oliver J O’Keefe\*** (okee0055@stthomas.edu). *Knotted Transitions in Tight Knots*. Preliminary report.

Glueballs are subatomic particles which are hypothesized to take the shape of tightened knotted and linked uniform-radius tubes. Under this hypothesis, one of the ways that glueballs could decay is via quantum tunneling events. In such an event, the tube fully passes through itself at a random self-contact along the tube. The goal of this research is to determine all of the possible knot type changes which can occur from quantum tunneling events in model glueballs. (Received September 19, 2016)