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Patrick Naylor* (patrick.naylor@uwaterloo.ca). *Gluck twisting roll spun knots.*

Given an embedded 2-sphere in the 4-sphere, a Gluck twist is a surgery which produces a 4-manifold homeomorphic, but not obviously diffeomorphic to the 4-sphere. This operation has been well studied, but it remains an open question whether all Gluck twists are standard. Many 2-spheres arising from “spinning” constructions are known to have standard Gluck twists, but roll-spun knots are notably absent from the list of such spheres. In this talk, I will discuss some recent results showing that the Gluck twist of the roll spin of an unknotting number one knot is standard. This is joint work with Hannah Schwartz. (Received August 31, 2020)