Vincent Longo* (vlongo2@unl.edu) and Alex Zupan. Bridge Trisections of Surfaces in 4-Manifolds.

In classical knot theory, many knot invariants are derived from a diagram of the knot. When studying knotted surfaces in dimension four, it becomes apparent that producing a diagram of a knotted surface can be complicated, and thus inherently more difficult to produce combinatorial definitions of knot invariants derived from a diagram. In this talk, we explore the idea of generalizing bridge splittings of classical knots to knotted surfaces in dimension four in order to obtain a simple diagram for the knotted surface. We call this generalization a bridge trisection of the knotted surface. (Received September 25, 2017)