

1125-57-448

Micah Chrisman* (mchrisma@monmouth.edu) and **Robert Todd**. *Virtual Knots and the Multi-variable Alexander Polynomial of Boundary Links in the 3-Sphere*. Preliminary report.

A two component oriented link $L = K_1 \sqcup K_2$ in \mathbb{S}^3 is said to be a boundary link if there are Seifert surfaces Σ_1, Σ_2 for K_1, K_2 , respectively, such that $\Sigma_1 \cap \Sigma_2 = \emptyset$. Given a boundary link, when can the disjoint surfaces Σ_1 and Σ_2 be chosen so that Σ_1 is also a minimal genus Seifert surface for K_1 ? We discuss an obstruction arising from virtual knot theory when K_1 is a fibered knot. The obstruction relates the multi-variable Alexander polynomial of a boundary link (in the sense of Gutiérrez) to the Alexander polynomial of an almost classical knot (Boden-Gaudreau-Harper-Nicas-White). Examples utilizing the obstruction are given. (Received September 02, 2016)