

1171-54-190      **Sarah Seger\*** ([sseger@cord.edu](mailto:sseger@cord.edu)). *Closed Seifert surfaces and 0.5-solvable links*. Preliminary report.

A slice knot was originally defined as a cross-section, or slice, of a sphere embedded in 4-dimensional space. Slice knots arise in the study of complex hypersurfaces, are related to the failure of the Whitney trick in 4 dimensions, and allow us to give the set of knots a group structure, but are difficult to detect. In 2003 Cochran, Orr, and Teichner introduced  $n$ -solvability. Slice knots are  $n$ -solvable for all  $n$ , and as  $n$  approaches infinity we may think of  $n$ -solvable knots as successively finer approximations of slice knots. For knots, 0.5-solvability is equivalent to the well-known condition of algebraic sliceness (every Seifert form has a metabolizer), but 0.5-solvable links remain unclassified. We define specific generalizations of Seifert forms to links using the 0-surgery manifold to obtain a necessary condition for 0.5-solvability. Martin classifies 0-solvable links using Milnor's invariants, however using our results we show that Milnor's invariants are insufficient to classify 0.5-solvable links. (Received August 10, 2021)