## 1014-55-1251 Karen B McCready\* (mccread2@tcnj.edu) and Matthias L Youngs (mly3@geneseo.edu). Generalizing Kirk-Livingston Type 1 Link Invariants. Preliminary report.

A link is the disjoint union of simple closed curves in space. Link invariants are used to distinguish links. Kirk and Livingston introduced an invariant  $\lambda$  for 2-component links, which they called the enhanced linking number [Topology 36 (1997), 1333-1353]. They observed that  $\lambda$  is a link invariant of "type 1" in an appropriate sense, and proved that every other type 1 invariant of 2-component links is of the form  $a\lambda + b$  for some constants a and b. Our research focused on attempting to generalize this result to 3-component links. The tools that we used included an algebraic and geometric homotopy classification of 3-component links with singularities and the coefficients of a power series expansion of the multivariable version of Conway's potential function, a well known polynomial link invariant. (Received September 27, 2005)