1115-57-222 **Micah Chrisman*** (mchrisma@monmouth.edu). *Detecting Non-Invertible Links with Virtual Covers.* Preliminary report.

It is well known that virtual knots have easily computable polynomial invariants that detect non-invertibility. We use this observation to prove that some multi-component links in $\mathbb{S}^3$ are non-invertible. The connection between multi-component links and one-component virtual knots is made through virtual covers. Briefly, a virtual cover associates a virtual knot v to a knot K in a 3-manifold N that possesses a regular covering by a thickened surface (under certain hypotheses on K). Virtual covers of links in $\mathbb{S}^3$ come from taking K to be a knot in the complement of a fibered link J. It will be shown that if $J \sqcup K$ is invertible, then v satisfies a certain symmetry condition to which some virtual knot polynomials are sensitive. (Received September 19, 2015)