1054-57-132   **Dave Auckly*** (`auckly@msri.org`), Dave Auckly, Mathematical Sciences Research Institute, Berkeley, CA 94720. *Gauge-string duality and the structure of large rank Chern-Simons invariants.* Preliminary report.

Gauge-string duality predicts that many gauge theories are equivalent to 'dual' string theories. For Chern-Simons theory, the best understood manifistation of this duality relates the Chern-Simons invariants of the three sphere to the Gromov-Witten of the resolved conifold, a the total space of a rank two complex vector over the projective line. This talk will review this duality and discuss what it might imply about the structure and unification of the theory. (Received September 10, 2009)