1056-57-546 **Colin Adams**, **Dan Collins*** (djc224@cornell.edu), **Katherine Hawkins**, **Charmaine Sia**, **Rob Silversmith** and **Bena Tshishiku**. *The Spherical Stick Index and Compositions of Trefoils.*

The stick index of a knot is the least number of line segments required to build the knot in space. We define a related invariant, the spherical stick index of a knot, as the least number of great circle arcs required to draw a diagram of that knot on a sphere. We look at the behavior of this invariant for compositions of trefoil knots, and find a surprising dependence on the handedness of the composed trefoils. (Received September 11, 2009)