

Meeting: 1004, Bowling Green, Kentucky, SS 4A, Special Session on Knot Theory and Its Applications

1004-57-104 **John M Sullivan*** (jms@isama.org). *Essential arcs of knots.*

Following Kuperberg, we define what it means for a subarc of a knot to be essential, capturing the knottedness. This notion has had important applications (in work with Denne and Diao) to geometric knot theory, giving new lower bounds for ropelength and distortion of knots. (Received January 19, 2005)