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

1004-52-192 **Jason H Cantarella*** (`jason@math.uga.edu`), Math Department, University of Georgia, University of Georgia, Athens, GA 30602, **Eric Rawdon**, GA, and **Michael Piatek**, GA.
Tensegrities, constrained optimization, and the theory of numerical knot-tightening. Preliminary report.

In this talk, we present some of the theory underlying the study and analysis of knot-tightening algorithms. We will present some visual and numerical results (including movies) from the knot-tightening software RidgeRunner, but the focus of the talk will be on analyzing the numerical performance of such methods in general. (Received January 24, 2005)