999-13-74   **Christopher A. Francisco*** (`chris@math.cornell.edu`), Department of Mathematics, 202 Mathematical Sciences Building, University of Missouri, Columbia, MO 65211-4100. *Bounds on the multiplicity of an ideal.* Preliminary report.

I will present some ongoing work on a conjecture of Huneke and Srinivasan on bounds for the multiplicity of an ideal. I plan to discuss a way to view the conjecture as a special case of the broader question that asks, given a Hilbert function, what sets of graded Betti numbers below those of the lex ideal actually occur for a module with that Hilbert function. I will also present some reductions I've been thinking about and give some computational data that lends credence to the conjecture. (Received August 08, 2004)