Huai-Dong Cao\* (huc2@lehigh.edu), Department of Mathematics, Lehigh University, Bethlehem, PA 18015, and Meng Zhu, Department of Mathematics, Lehigh University, Bethlehem, PA 18015. Second variation and stability for Ricci solitons.

We will present the second variation formula for Perelman's shrinker entropy and discuss linear stability of Ricci solitons. (Received August 15, 2010)