

1118-53-55

**Jeffrey Jauregui\*** (jaureguj@union.edu) and **Dan Lee**. *Lower semicontinuity of the ADM mass for  $C^0$  convergence.*

In joint work with Dan Lee, we study the behavior of the ADM mass for a convergent sequence of asymptotically flat manifolds. The main result is that the mass cannot increase when passing to the limit, for pointed  $C^0$  Cheeger-Gromov convergence (under natural and necessary hypotheses of nonnegative scalar curvature and the absence of interior horizons). Because of the lower regularity convergence, we rely heavily on Huisken's isoperimetric mass concept. (Received January 18, 2016)