1012-35-132 **Paul T Allen*** (`pallen1@math.uoregon.edu`), Department of Mathematics, 1222 University of Oregon, Eugene, OR 97403, and **Lars Andersson** and **James Isenberg**. *Timelike Minimal Hypersurfaces in Lorentzian Spacetimes.*

Time-like hypersurfaces in Lorentzian spacetimes which are critical points of the induced area functional are of interest in mathematics because of the nonlinear nature of the geometric PDE system which they satisfy. We discuss the Cauchy problem associated to this PDE system, and present a well-posedness result. Restricting our attention to the special case of Minkowski space, we prove small-data global existence and stability results for hypersurfaces of this sort with arbitrary co-dimension. (Received September 16, 2005)