Jason Metcalfe* (metcalfe@email.unc.edu), Department of Mathematics, University of North Carolina, Chapel Hill, NC 27599-3250. Local well-posedness for quasilinear Schrodinger equations.
We will discuss ongoing joint work with J. Marzuola and D. Tataru concerning low regularity local well-posedness results for quasilinear Schrodinger equations. Our results establish new benchmarks in terms of the required regularity for such equations to be well-posed. The function spaces in which we work incorporate a summability over cubes in order to deal with issues arising from the Mizohata integrability condition / the infinite speed of propagation. (Received January 18, 2015)