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Jacob Sterbenz* (jsterben@math.ucsd.edu), **Joachim Krieger** and **Daniel Tataru**. *Critical regularity for the Maxwell-Klein-Gordon equation.*

We discuss recent work on regularity for the (4+1) dimensional Maxwell-Klein-Gordon with initial data small in the energy space. The proof employs some new estimates for parametrices of magnetic wave equations in Bourgain type spaces. (Received December 09, 2011)