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Jason Metcalfe* (metcalfe@email.unc.edu), Department of Mathematics, University of North Carolina, Chapel Hill, NC 27599-3250. *Long time existence for quasilinear wave equations in exterior domains.*

We shall explore some new long time existence results for quasilinear wave equations with small initial data in exterior domains. In particular, we focus on results where the nonlinearity is permitted to depend on the solution not just its derivatives. (Received February 22, 2010)