

Contribution Title:	ON THE MAXWELL-KLEIN-GORDON SYSTEM IN LORENZ GAUGE
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It is a well-known result of Klainerman and Machedon that the nonlinear Maxwell-Klein-Gordon system (MKG), when written relative to the Coulomb gauge, is globally well posed for finite-energy initial data. The proof relies crucially on the null structure of the main bilinear terms of MKG in Coulomb gauge. It appears to have been believed that an analogous structure is not present in Lorenz gauge, but in fact it is, as I discuss in this talk. Lorenz gauge has the advantage of being Lorentz invariant, hence MKG becomes a system of nonlinear wave equations, whereas in Coulomb gauge the system has a less symmetric form, as it contains also a nonlinear elliptic equation.