

ALMOST-GLOBAL WELL-POSEDNESS FOR 2D STRONGLY-COUPLED WAVE-KLEIN-GORDON SYSTEMS

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In this talk we discuss the almost-global well-posedness of a wide class of coupled Wave-Klein-Gordon equations in 2+1 space-time dimensions, when initial data are small and localized. The Wave-Klein-Gordon systems arise from several physical models especially related to General Relativity but few results are known at present in lower space-time dimensions. Compared with prior related results, we here consider a strong quadratic quasi-linear coupling between the wave and the Klein-Gordon equation and no restriction is made on the support of the initial data which only have a mild decay at infinity and very limited regularity. This is a joint work with M. Ifrim.