1016-35-158 Atanas Stefanov* (stefanov@ku.edu), 1460, Jayhawk Blvd, Department of Mathematics, University of Kansas, Lawrence, KS 66045. On quadratic derivative Schrödinger equations.

The Schrödinger equation with derivative perturbation terms is considered in one space dimension. For the linear equation, we show that the standard Strichartz estimates hold under specific smallness requirements on the potential. As an application, we establish existence of local solutions for quadratic derivative Schrödinger equations in one space dimension with small and rough Cauchy data. (Received February 10, 2006)