1052-60-345   **Wojbor A. Woyczynski*** (`waw@case.edu`), Department of Statistics, Case Western Reserve University, Cleveland, OH 44106. *Nonlinear nonlocal evolution equations driven by Levy diffusions.*

We consider nonlinear nonlocal evolution equations driven by Levy diffusions. Competition between the strength of the nonlocal diffusive terms and the nonlinear terms is studied. Both quasilinear and strongly nonlinear cases are considered. Propagation of chaos results and existence of the densities for "weak" solutions of such equations are discussed. (Received September 01, 2009)