

Some Problems Concerning Asymptotic Properties and Selfsimilar Solutions for Nonlinear Evolution Equations Driven by Infinitesimal Generators of Levy Processes

Wojbor Woyczynski

*Case Western Reserve University
USA*

Nonlinear evolution equations driven by infinitesimal generators of Levy processes display different asymptotic properties depending on the interplay between the nonlinearities and the strength of Levy "diffusion". In some case the asymptotics is that of a linearized problem and, in others, there are special selfsimilar solutions that dictate it. I will discuss this problem in the context of equations of hydrodynamic type and will describe future challenges in this area.