## 1108-60-97 Nikolai N. Leonenko, Mark M. Meerschaert, Rene L. Schilling and Alla Sikorskii<sup>\*</sup> (sikorska@stt.msu.edu), 619 Red Cedar Road, Department of Statistics and Probability, Michigan State University, East Lansing, MI 48824. Correlation structure of time-changed Lévy processes.

Time-changed Lévy processes are obtained by replacing the deterministic time by a positive non-decreasing stochastic process. The processes used to model random time include subordinators and inverse subordinators, and the time-changed Lévy processes include the fractional Poisson process and the scaling limit of a continuous time random walk. The use of time-changed processes in modeling often requires the knowledge of their second order properties such as the correlation function. This paper provides the explicit expression for the correlation function for time-changed Lévy processes. Several examples useful in applications are discussed. (Received January 04, 2015)