

998-60-93

Gennady Samorodnitsky* (gennady@orie.cornell.edu), School of ORIE, Cornell University, Ithaca, NY. *Extreme value theory, ergodic theory, and the boundary between short memory and long memory for stationary stable processes.*

A stationary stable process can be characterized by a nonsingular flow on a measure space. In particular, the Hopf decomposition of the flow leads to an important classification of the stable processes. We will see that partial maxima of stable processes both in discrete and continuous time grow at different rates depending on whether the underlying flow is conservative or dissipative. We argue that this can be viewed as an indication of a boundary between short and long memory processes.

(Received February 13, 2004)