

Time change and universality: Heavy tailed distributions in turbulence and finance

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Empirical time series of turbulent flows and financial markets reveal some common basic stylized features. In particular, both systems show aggregational Gaussianity, i.e. the evolution of probability densities from heavy tails at small time scales towards a Gaussian shape at large time scales. We report some empirical findings about the dynamics of aggregational Gaussianity in both systems.

research interests:

- Turbulence
- Non-linear dynamics
- Stochastic finance
- Growth processes