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## Intermittency for the stochastic heat equation with Lévy noise

## With Péter Kevei (U Szeged)

We investigate the moment asymptotics of the solution to the stochastic heat equation driven by a (d + 1)-dimensional Lévy space–time white noise. Unlike the case of Gaussian noise, the solution typically has no finite moments of order 1 + 2/d or higher. Intermittency of order p, that is, the exponential growth of the pth moment as time tends to infinity, is established in dimension d = 1 for all values  $p \in (1,3)$ , and in higher dimensions for some  $p \in (1,1+2/d)$ . The proof relies on a new moment lower bound for stochastic integrals against compensated Poisson measures. The behavior of the intermittency exponents when  $p \rightarrow 1 + 2/d$  further indicates that intermittency in the presence of jumps is much stronger than in equations with Gaussian noise. The effect of other parameters like the diffusion constant or the noise intensity on intermittency will also be analyzed in detail.