

Long strange segments and ruin probabilities

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The large deviation for a stochastic process carries a lot of information. We show that the rate of growth of long strange segments and the rate of decay of infinite time ruin probabilities of a process can be related to its large deviation under fairly general assumptions. We present the example of moving average process and show that under absolute summability of the coefficients it behaves very much like i.i.d. random variables. On the other hand, the lack of absolute summability ushers in some drastic changes and thus demonstrates a phase transition phenomenon in memory of the process.

This is a joint with Gennady Samorodnitsky.

List of invited speakers

Schedule for December 13