

2:25-3:00 Victoria Knopova (Faculty of Mechanics and Mathematics of Taras Shevchenko National University of Kyiv, Ukraine /Institute of Mathematics National Academy of Science of Ukraine)

On a “dynamic” approximation of a Lévy process and its application to Lévy-driven SDEs

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In this talk I discuss the idea, effective in the construction of transition density estimates of Lévy(-type) processes, in the context of simulations. We approximate a trajectory of a Lévy process by that of an inhomogeneous compound Poisson process, obtained by cutting out small jumps in time-dependent way. In the talk I discuss the convergence rates for such approximation, as well as the “pros and cons” of such our approach.