1112-60-534 **Jose E. Figueroa-Lopez*** (figueroa@math.wustl.edu), One Brookings Drive, St. Louis, MO 63130-4899, and **Yankeng Luo**, 150 N. University Street, West Lafayette, IN 47907-2067.

Small-time expansions for state-dependent local jump-diffusion models with infinite jump activity. Preliminary report.

In this article, we consider a Markov process X, solving a stochastic differential equation which is driven by a Brownian motion and an independent pure jump component exhibiting state-dependent jump intensity and infinite jump activity. A second order expansion is derived for the tail probability of the process in small time. As an application of this expansion and a suitable change of the underlying probability measure, a second order expansion, near expiration, for out-of-the-money European call option prices is obtained when the underlying stock price is modeled as the exponential of the jump-diffusion process X under the risk-neutral probability measure. (Received August 11, 2015)