1046-60-1287 **Erhan Bayraktar**, 2846 East Hall, 530 Church Street, Ann Arbor, MI 48104, and **Hao Xing*** (haoxing@umich.edu), 3080 East Hall, 530 Church Street, Ann Arbor, MI 48104. *Regularity of the American put price in exponential Lévy models.*

In this talk, we will discuss some new results on the regularity of the American put price in exponential Lévy models with non-degenerate diffusion component. Under some conditions on the Lévy measure, we show that the price function is a classical solution of the free boundary problem. The regularity of the value function when the Lévy measure has finite activity was already known. Here, we extend these results to the Lévy measures that have infinite activity.

So far different notions of generalized solutions were used to describe the price funtion: solutions in viscosity sense by Pham and solutions in distribution sense by Lamberton and Mikou. This a joint work with Erhan Bayraktar. (Received September 15, 2008)