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Yong Zeng\* (zengy@umkc.edu), Dept of Math and Stat, 5100 Rockhill Rd, Kansas City, MO 64110, Jie Xiong, Department of Mathematics, Avenida da Universidade, Taipa, Macau, Macau, Shuaiqi Zhang, School of Economics and Commerce, Guangzhou, Guangdong, Peoples Rep of China, and Xiangdong Liu, Department of Statistics, Guangzhou, Guangdong, Peoples Rep of China. *Mean-Variance Portfolio Selection for Partially-Observed Marked Point Processes.* 

In a ultra-high frequency trading environment, we study the classical mean-variance portfolio selection problem in an incomplete market with one bond and multiple stocks. Each stock price is modeled as a marked point process, the noisy observation of the intrinsic value process. With incomplete information, we obtain a separation principle. Using the maximum principle for stochastic control of FBSDEs with jump, we explicitly derive the efficient strategies, which rely on filtering. (Received January 12, 2015)