Kasper Larsen* (kasper1@andrew.cmu.edu), Department of Mathematical Sciences, Wean Hall 7219, Pittsburgh, PA 15213, and Jin Hyuk Choi. Taylor approximation of incomplete Radner equilibrium models. Preliminary report.

In the setting of exponential investors and uncertainty governed by Brownian motions we first prove the existence of an incomplete equilibrium for a general class of models. We then introduce a tractable class of exponential-quadratic models and prove that the corresponding incomplete equilibrium is characterized by a coupled set of Riccati equations. Finally, we prove that these exponential-quadratic models can be used to approximate the incomplete models we studied in the first part. (Received September 16, 2013)