1093-60-37 **Tim Leung*** (tl2497@columbia.edu) and **Jinbeom Kim**. *Reaction-Diffusion PDEs in Mathematical Finance.* Preliminary report.

We discuss a number of reaction-diffusion PDEs and their applications to Mathematical Finance. In order to solve these PDEs, we provide a fixed-point theorem that yields the unique generalized solution. This naturally leads to an iterative finite-difference method based on contraction mapping. (Received July 01, 2013)