1010-60-115   **Jie Wu*** (`wujie@math.lsu.edu`), 3650 Nicholson Dr. Apt. 2204, Baton Rouge, LA 70802.
Approximation to the Solution of a Class of Interacting Particle Systems: New Approach.

The problem of solutions V(t) to a class of SPDEs approximated by a sequence of weighted empirical measures induced by a system of interacting diffusions has been studied by Thomas Kurtz & Jie Xiong in [1]. In this paper, a different approach will be tried to arrive at the same conclusion by replacing the condition of bounded coefficients by the linear growth condition, and a new approach is also adopted to study the convergence of the sequence of weighted empirical measures. (Received August 22, 2005)