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Stanislav Molchanov*, Univeristy of North Carolina - Charlotte, Dept of Mathematics and Statistics, Fretwell 376, 9201 University City Blvd., Charlotte, NC 28223. *Reaction – diffusion equations with the evolution of the particles.*

We will discuss the dynamics of the population of the particles governed by the KPP equation, but with the additional parameter (call it a mass). The model can describe the real biological situations , for example, plankton in an ocean. We will present several results: the propagation of the "wave front" for the particles or masses, the distribution of the masses of the "typical" particles, the joint distribution for the number of the particles and their mass, the intermittency effects etc. (Received February 10, 2009)