From a microscopic model to a macroscopic model with cross-diffusion in Population Dynamics

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Abstract

We present new results of existence for a class of reaction-cross diffusion systems naturally arising in Population Dynamics. In the case where cross diffusion terms appear only in one of the two equations (triangular case), the solutions are obtained as the limit of the solutions of a microscopic model where only standard diffusions appear. The results use entropy and duality methods.

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