

A numerical approach to two sex age-structured populations models in a space of Radon measures

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Abstract

The two sex age-structured populations model in a space of Radon measures is roughly speaking a system of transport equations with nonlocal boundary conditions considered in a certain space of measures equipped with flat metric. A numerical method described in this talk is based on a splitting technique, where we deal with two semi-groups. One is defined by the transport operator while the second one is obtained from the nonlocal boundary condition. This setting allows us to approximate the solution of the underlying problem as a sum of Dirac delta functions. These are results of a joint work with Piotr Gwiazda from University of Warsaw.

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