From cell differentiation to epidemiology, applications of structured population models

Piotr Gwiazda, IM PAS and Univ. of Warsaw

Different biological aspects based on completely different scale can be modeled by similar mathematical models (structured population models). In my presentation I will concentrate on two different problems: differentiation of hematopoietic cell and epidemiology of HIV. The target is: numerical and mathematical analysis of these models as well as calibration to experimental data.