



Mikhail Kolev

University of Warmia and Mazury, Faculty of Mathematics and Computer Science

E-mail: kolev@matman.uwm.edu.pl

Iveta Nikolova

South-West University "Neofit Rilski", Faculty of Mathematics and Natural Sciences

Blagoevgrad, Bulgaria

E-mail: iveta.nikolova@abv.bg

## A mathematical model of some viral-induced autoimmune diseases

We propose a new mathematical model of viral-induced autoimmune diseases. The model is described by a bilinear system of four integro-differential equations of Boltzmann type. We present numerical results illustrating several typical outcomes of autoimmune diseases. In particular, special attention is devoted to the role of the ability of effector immune cells to destroy target cells for the development of autoimmune diseases.

### References

- [1] M. Kolev, I. Nikolova, *A mathematical model of some viral-induced autoimmune diseases*, *Mathematica Applicanda* 46(1) (2018), 97–108, doi=10.14708/ma.v46i1.6391.