Mikhail Kolev
Faculty of Mathematics and Computer Science
University of Warmia and Mazury
E-mail: `kolev@matman.uwm.edu.pl`

Numerical modeling of cancer – immune system interaction

We present numerical analysis of a well-known mathematical model of tissue invasion by cancer cells. By the use of a finite element method the modeling system of PDEs is approximated by a systems of nonlinear ODEs. The proposed numerical integration method preserves the nonnegativity properties of the continuous solutions and satisfies the discrete analog of some conservation and evolution laws valid for the PDE system solution.