Numerical solutions of the system of partial differential equations for observing epidemic models

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Abstract: In the present paper, stability of initial-boundary value problem for the system of partial differential equations for observing HIV mother to child transmission epidemic models is studied. Applying operator approach, theorems on stability of this problem and of difference schemes for approximate solutions of this problem are established. The generality of the approach considered in this paper, however, allows for treating a wider class of multidimensional problems. Numerical results are provided.

Keywords: Difference schemes, system of partial differential equation, epidemic models, realization in computer.

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