Development of algorithms and software for recurrent multidimensional and parametric methods of «fast» modeling of dynamic systems

© N.A. Malakhov, I.R. Tantashev

Bauman Moscow State Technical University, Moscow, 105005, Russia

To accelerate and simplify the process of modeling of dynamic systems algorithms and software for multidimensional and parametric methods for the implementation of their discrete digital models are developed and tested. The obtained results are applicable to the modelling of linear stationary and non-stationary and nonlinear dynamic systems.

Keywords: numerical modeling, discrete digital systems, fundamental system, system of solutions, system of differential equations, Cauchy formula, analytical computing, numerical computing.

Malakhov N.A., Ph.D, Assoc. Professor of the Automatic Control Systems Department of Bauman Moscow State Technical University. e-mail: nikomalak@yandex.ru

Tantashev I.R., graduate student of the Automatic Control Systems Department of Bauman Moscow State Technical University.