APPLICATION OF A SECOND DERIVATIVE MULTISTEP METHOD TO NUMERICAL SOLUTION VOLTERRA INTEGRAL EQUATION OF SECOND KIND

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As it is known, investigations of variable boundary integral equations began with Abel's known paper published in 1826. Volterra is a founder of the theory of variable boundary integral equations. He was the first who saw the importance of this theory and considered if systematically. Therefore, these equations are related with his name. Many famous sweetish were engaged in approximate solution of Volterra integral equations. They have published several papers. A part of then, were devoted to numerical solution of Volterra integral equations related with application of ECM. The quadrature method is more popular among the numerical methods in this method, the volume of computations works increases of each integration step while from the current point to the next one. For removing the indicated deficiency the specialists suggested the Runge-Kutta, Adams and etc. methods together with the quadrature method. Here we suggest a method that allows preserving the constant volume of calculations works at each step.

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