

SOME RUNGE-RUTTA-FEHLBERG FORMULAS FOR THE NONLINEAR INTEGRAL EQUATION OF VOLTERRA TYPE

(Abstract)

The nonlinear integral equation of Volterra type (1) is considered and the idea of E. Fehlberg transformation from [2], [3] and [4] is used. A new unknown function $y(x)$ is introduced which is given by an „ m length” transformation (2) and a new integral equation (4) is obtained. For the equation (4) a class of Runge-Kutta type formulas (6), (6') of order $m + 3$ is derived.