

Issues of One Kind of Integro-Differential Equations

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Abstract

We consider one kind of equations that combines a derivative of state and an integro-differential term (integro-differential equation of second kind). The exact solution of this class of equations can be obtained by means of Volterra integral equation of the second kind, and the numerical solutions are obtained by the developing numerical methods in this paper. We compare both solutions by their graphs.

Keyword : integro-differential equation of first kind、integro-differential equation of second kind、numerical method