

Numerical methods based on deficient splines collocation to solve Volterra equations

F. Calio'(*)- E. Marchetti (*)- R. Pavani (*)

(*) Politecnico di Milano-Dipartimento di Matematica "F. Brioschi", Piazza Leonardo da Vinci 32, 20133 Milano (Italy)

Abstract

In this paper we propose a collocation method by deficient spline to approximate the solution of Volterra integral equations with solution belonging to a low regularity class. The existence, uniqueness and convergence of the approximating spline are investigated. The algorithm supporting the numerical model is described. Numerical examples are given.

AMS subject classification: 65R20, 65D07