

Multistep block method for solving vanishing delay differential equations

ABSTRACT

The multistep block method is applied to solve the particular vanishing delay case in delay differential equations. The proposed method which is based on predictor-corrector scheme are used to determine three approximate solutions concurrently in each step of integration. The new strategy to obtain the solution of the vanishing delay within the three point in each block is investigated with the implementation of variable step size. Numerical results are presented for some problems to demonstrate the efficiency and accuracy of this method.

Keyword: Multistep block method; Vanishing delay; Variable step size