Solving second-order delay differential equations by direct Adams-Moulton method

ABSTRACT

This paper will consider the implementation of fifth-order direct method in the form of Adams-Moulton method for solving directly second-order delay differential equations (DDEs). The proposed direct method approximates the solutions using constant step size. The delay differential equations will be treated in their original forms without being reduced to systems of first-order ordinary differential equations (ODEs). Numerical results are presented to show that the proposed direct method is suitable for solving second-order delay differential equations.