

Exponentially Fitted Fifth-Order Two-Step Peer Explicit Methods

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Abstract

The so called peer methods for the numerical solution of Initial Value Problems (IVP) in ordinary differential systems were introduced by R. Weiner for solving different types of problems either in sequential or parallel computers. In this work, we study exponentially fitted three-stage peer schemes that are able to fit functional spaces with dimension six. Finally, some numerical experiments are presented to show the behaviour of the new peer schemes for some periodic problems.