

Modification of Newton Method in Two Points Block Differentiation Formula

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Abstract : Block methods for solving stiff systems of ordinary differential equations (ODEs) are based on backward differential formulas (BDF) with PE(CE)2 and Newton method. In this paper, we introduce Modified Newton as a new strategy to get more efficient result. The derivation of BBDF using modified block Newton method is presented. This new block method with predictor-corrector gives more accurate result when compared to the existing BBDF.

Keywords : modified Newton, stiff, BBDF, Jacobian matrix

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