

Three-step iterative weight function scheme with memory for solving nonlinear problems

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Abstract

In this manuscript, we present a parametric family of derivative-free 3-steps iterative methods with a weight function for solving nonlinear equations. We study various ways of introducing memory to this parametric family in order to increase the order of convergence without new functional evaluations. We also performed numerical experiments to compare the iterative methods from different points of view.

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