Abstract

In this paper, we compared and analyzed some newly diagonal variants of Newton methods for solving large-scale systems of nonlinear equations. Due to the fact that, the diagonal updating scheme is computationally less expensive than classical Newton methods and some of its variants. The two diagonal updating were introduced by Waziri et.al. [6] and Waziri et.
al.[7] respectively. Reasonable analysis into the efficiency and stability of the two diagonal updating scheme are given by numerical evaluation of some benchmark nonlinear systems with Newton method and some of its variants.

**References**


**Index Terms**

Computer Science

Applied Mathematics

**Keywords**

Numerical Method solution Newton’s method
On Performance Analysis of Diagonal Variants of Newton’s Method for Large-Scale Systems of Nonlinear Equations