

Eisenstat, Stanley C.; Walker, Homer F.

Globally convergent inexact Newton methods. (English) Zbl 0814.65049
SIAM J. Optim. 4, No. 2, 393-422 (1994).

Inexact Newton methods are formulated that incorporate features designed to improve convergence from arbitrary starting points. For each method, a basic global convergence result is established to the effect that, under reasonable assumption, if a sequence of iterates has a limit point at which F' is invertible, then that limit point is a solution and a sequence converges to it.

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MSC:

65H10 Numerical computation of solutions to systems of equations

Cited in **172** Documents

Keywords:

inexact Newton methods; global convergence

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