Third order iterative schemes for non-Fréchet differentiable operators

A modification of classical third order methods is studied. The main advantage of these methods is they do not need evaluate any Fréchet derivative. A convergence theorem in Banach spaces, just assuming the second divided difference is bounded by a nondecreasing function and a punctual condition, is presented. Fréchet differentiability is not required. Finally, some numerical results are analyzed.

Key Words. .

AMS(MOS) subject classifications.