Numerical Methods for Solving Nonlinear Equations and Systems: Convergence and Stability

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Message from the Guest Editors

Solving nonlinear equations and systems is a non-trivial task that involves many areas of science and technology. Usually it is not affordable in a direct way and iterative algorithms play a fundamental role in solving nonlinear equations and systems. This is an area of research that has experienced exponential growth in the last years.

The main theme of this Special Issue is the design, analysis of convergence and stability and application to practical problems of new iterative schemes for solving nonlinear problems. This includes methods with and without memory, with derivatives or derivative-free, and the real or complex dynamics associated with them and an analysis of their convergence that can be local, semilocal or global. High quality submissions on related topics are also welcome.

Keywords

- Nonlinear problems
- Iterative methods
- Convergence
- Efficiency
- Chaotic behavior
- Complex or real dynamics

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