

Editorial

Iterative Methods for Nonlinear Equations or Systems and Their Applications

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The construction of fixed point iterative methods for solving nonlinear equations or systems is an interesting task in numerical analysis and applied scientific branches, which has attracted so much attention recently. In the last years, iterative techniques have been applied in many diverse fields as economics, engineering, physics, dynamical models, and so on.

The basic purpose of this special issue is to present the new trends in the field of fixed point iterative methods for nonlinear problems and extend their applications in mathematics and applied sciences. The authors were invited to submit original research articles to stimulate the continuing efforts in nonlinear equations and related theories. The special issue provided a forum for researches and scientists to communicate their recent developments and to present their novel results on nonlinear problems. The topics included in this special issue are as follows:

- (i) Design of new Newton-type iterative methods for solving nonlinear equations or systems,
- (ii) Steffensen-type methods for estimating the solution of nonlinear problems,
- (iii) Newton-type methods for differential-algebraic equations and fuzzy integrodifferential equations,
- (iv) Iterative schemes applied to image processing, radio detection, and ranging.

- (v) Variational iterative methods,
- (vi) Rocking vibrations in geotechnical problems,
- (vii) Iterative schemes for singular problems,
- (viii) Adomian decomposition methods for non-Newtonian fluids,
- (ix) Homotopy analysis method for buckling nonuniform columns,
- (x) Nonlinear problems associated to automatic guided vehicles,
- (xi) Variable order fractional financial systems,
- (xii) Variational inequalities in Banach spaces,
- (xiii) Semilocal convergence in Banach spaces,
- (xiv) Iterative schemes applied to optimization problems,
- (xv) Generalized equilibrium problems,
- (xvi) Nonlinear models in medicine.

From the 74 papers received, this special issue includes 28 high-quality peer-reviewed articles that reflect recent trends in the previous topics. The guest editors of this issue hope that the presented results could outline new ideas for future studies.