Advances in Pure Mathematics



ISSN Online: 2160-0384

Special Issue on Iterative Methods

Call for Papers

In computational mathematics, an iterative method is a mathematical procedure that generates a sequence of improving approximate solutions for a class of problems. A specific implementation of an iterative method, including the termination criteria, is an algorithm of the iterative method. An iterative method is called convergent if the corresponding sequence converges for given initial approximations. A mathematically rigorous convergence analysis of an iterative method is usually performed. However, heuristic-based iterative methods are also common. Iterative methods are often the only choice for nonlinear equations. However, iterative methods are often useful even for linear problems involving a large number of variables (sometimes of the order of millions), where direct methods would be prohibitively expensive (and in some cases impossible) even with the best available computing power. As one of most important branches in the pure mathematics, **iterative methods** are of great attractions to researchers.

In this special issue, we intend to invite front-line researchers and authors to submit original researches and review articles on exploring **iterative methods**. Potential topics include, but are not limited to:

- Stationary iterative methods
- Krylov subspace methods
- Iterative computation
- Convergence of Krylov subspace methods
- Root-finding algorithm
- Implicit damping iterative algorithm
- Linear complementarity problem
- Iterative methods for nonlinear equations or systems

Authors should read over the journal's <u>Authors' Guidelines</u> carefully before submission. Prospective authors should submit an electronic copy of their complete manuscript through the journal's <u>Paper Submission System</u>.

Please kindly notice that the "**Special Issue**" under your manuscript title is supposed to be specified and the research field "**Special Issue** - *Iterative Methods*" should be chosen during your submission.

According to the following timetable:

Advances in Pure Mathematics



ISSN Online: 2160-0384

Submission Deadline	April 21st, 2015
Publication Date	June 2015

Guest Editor:

For further questions or inquiries Please contact Editorial Assistant at apm@scirp.org