

## Special Issue on Recent Developments and Applications on Qualitative Theory of Fractional Equations and Related Topics

### Call for Papers

Fractional differential equations have been the subject of considerable interest recently. It is caused both by the intensive development of the theory of fractional differential equations itself and by the applications of such constructions in various sciences such as physics, mechanics, chemistry, and engineering. Along another line, it is well known that the qualitative theory of differential equations can be very useful in applications. Much attention has been given to stability, oscillation, asymptotic, existence, and uniqueness theory of differential equations and so forth in the literature over the past decades. The explosion in research within the fractional differential equation setting led to new developments in qualitative theories to fractional differential equations. It is well known that the analysis of fractional differential equations is more complex than that of classical differential equations, since fractional derivatives are nonlocal and have weakly singular kernels. As a result, the development of qualitative theories, especially oscillation, of nonlinear fractional differential equations has been a bit slow. Therefore, it is expected to establish qualitative theories of fractional differential equations.

Thus, we invite authors to contribute original research articles as well as review articles. Potential topics include, but are not limited to:

- Recent developments on stability theory in fractional differential equations
- Advances in existence and uniqueness theory in fractional differential equations
- Development on oscillation theory of fractional equations
- Numerical methods for solving fractional differential equations, numerical simulation, and convergence analysis for qualitative theories of the fractional differential equations
- Applications of fractional differential equations

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System at <http://mts.hindawi.com/submit/journals/aaa/tfer/> according to the following timetable:

Manuscript Due	Friday, 27 June 2014
First Round of Reviews	Friday, 19 September 2014
Publication Date	Friday, 14 November 2014

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