



Qualitative Analysis of Differential Equations: Theory and Applications

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Message from the Guest Editors

In the past year, qualitative analyses, i.e., analyses of the stability, boundedness, integrability, existence and uniqueness of solutions functional differential equations (delay differential equations, neutral differential equations, advanced differential equations and impulsive differential equations); dynamic models; integral equations; integro-differential equations; partial differential equations; fractional differential equations; fractional integro-differential equations; fractional partial differential equations; etc., have attracted the attention of numerous researchers at the theoretical level and at the level of their applications.

Therefore, these kinds of equations can be solved analytically in particular cases, but not numerically. Qualitative theory can enable us to obtain information about the behaviour of solutions without prior information on them by means of Lyapunov's second method, the fixed-point method, the Lyapunov–Krasovskii method, and so on. The aim of this SI is to collect some new theoretical contributions and real-world applications with regard to the qualitative theory of the equations mentioned above.





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Message from the Editor-in-Chief

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