



Variational Problems and Fractional Differential Equations

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Message from the Guest Editors

Fractional differential equations are being frequently used in physics, chemistry, biology, probability and finance modelling problems, such as, the ultrarelativistic limits of quantum mechanics, flame propagation, water waves, chemical reactions of liquids and population dynamics, etc. The Calculus of Variations provides a range of tools for the study of fractional differential equations for both mathematical theory and practical applications. The aim of this Special Issue is to present some of the recent developments on the qualitative properties of solutions for variational problems and fractional differential equations. The potential topics concerned with qualitative properties of solutions include, but are not limited to, a priori estimate, existence, non-existence, uniqueness, regularity, symmetry, stability and asymptotic behavior.

- Variational problems;
- Fractional differential equations;
- Priors estimate;
- Existence, non-existence, and uniqueness;
- Regularity and symmetry;
- Stability;
- Asymptotic behavior.

