

Special Issue on Existence and Asymptotic Behaviour of Solutions of Differential and Integral Equations in Some Function Spaces

Call for Papers

In nonlinear analysis, the solvability of several kinds of operator equations is investigated (differential, integral, functional differential, functional integral, and functional). Usually we look for the solutions of those equations in various function spaces such as Banach function spaces, Sobolev spaces, Fréchet spaces, and others. It turns out that in order to ensure the solvability of an operator equation in a concrete function space we are forced to impose some assumptions on functions involved in that equation. The method used in the proof of an existence theorem for an operator equation in a given function space also generates various types of constraints on components of that equation.

The aim of this special issue is to investigate the solvability of operator equations in connection with a function space in which our investigations are conducted. Particular emphasis should be paid on various properties of function spaces which are used in the proof of the solvability of considered operator equations. We are also going to study how function spaces, in which operator equations are considered, affect constraints imposed on components of those equations.

The research and review articles are invited which expose the mentioned connections, but this issue is not limited only to papers representing the above described direction and spirit. We invite especially papers concerning miscellaneous aspects of the asymptotic behavior of solutions of differential, integral, and functional equations. Potential topics include, but are not limited to:

- Operator equations in the space of functions defined, bounded, and continuous on the real half-axis
- Operator equations (including partial differential equations) in spaces of functions of several variables
- Solvability of operator equations in the space of functions with increments tempered by a given modulus of continuity
- Operator equations in the space of functions of bounded variation (in classical and generalized sense)
- Operator equations and their solvability in Fréchet spaces

- Solvability of operator equations in other function spaces (Sobolev spaces, absolutely continuous function space, almost periodic function space, etc.)

Before submission authors should carefully read over the journal's Author Guidelines, which are located at <http://www.hindawi.com/journals/jfs/guidelines/>. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/jfs/eabs/> according to the following timetable:

Manuscript Due	Friday, 13 June 2014
First Round of Reviews	Friday, 5 September 2014
Publication Date	Friday, 31 October 2014

Lead Guest Editor

Józef Banaś, Department of Mathematics, Rzeszów University of Technology, Rzeszów, Poland; jbanas@prz.edu.pl

Guest Editors

Mohamed Abdalla Darwish, Department of Mathematics, Sciences Faculty for Girls, King Abdulaziz University, Jeddah, Saudi Arabia; dr.madarwish@gmail.com

Leszek Olszowy, Department of Mathematics, Rzeszów University of Technology, Rzeszów, Poland; lolszowy@prz.edu.pl

Kishin Sadarangani, Department of Mathematics, University of Las Palmas de Gran Canaria, Campus de Tafiira Baja, Las Palmas de Gran Canaria, Spain; ksadaran@dma.ulpgc.es