



Nonlinear Differential Equations and Functional Analysis: Theory and Applications

Guest Editor:

Prof. Dr. Jenny Harrison

Department of Mathematics,
University of California, Berkeley,
CA 94720, USA

Deadline for manuscript
submissions:

closed (30 September 2022)

Message from the Guest Editor

The directed system is not apparent when looking at currents, especially when considering operators, but becomes clear when turning the variance around. Whitney believed that methods based on domains were primary, so that, in particular, the boundary operator could be defined directly, not as the dual to the exterior derivative. However, he did not have the entire directed system of domains. His sharp and flat chains of geometric integration theory came close, but neither captured the required properties. It was not until differential chains were introduced that a directed system of domains was found solving the conjecture. This theory gives analysis on the fractals in a natural setting and includes generalizations of the integral theorems of calculus to nonsmooth domains with nonsmooth boundaries. Classical operators of geometry, such as boundary, Hodge star and pushforward, have direct definitions on polyhedral approximations and are continuous.

A goal of this special edition is to present research papers relating the differentiability class of functions and the dimension of domains.





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Editor-in-Chief

Prof. Dr. Francisco Chiclana
School of Computer Science and
Informatics, De Montfort
University, The Gateway,
Leicester LE1 9BH, UK

Message from the Editor-in-Chief

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Mathematics Editorial Office
MDPI, Grosspeteranlage 5
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