

Special Issue on L^p -Theory of Differential Forms and Related Operators with Applications

Call for Papers

Differential forms are extensions of functions and have become invaluable tools for many fields of sciences and engineering, including theoretical physics, general relativity, potential theory, and electromagnetism. Operators are critical tools to establish existence and regularity for solutions to PDEs and to control oscillatory behavior on a manifold. In many situations, the process to solve a PDE or a system of PDEs involves integration or integral estimate for some operators. Operators are often used to represent solutions of PDEs. In recent years, much progress has been made in the study of differential forms and related operators. This special issue is devoted to publishing the latest and significant results in this field. Its goals are to stimulate further research and to highlight recent advances in the field. Potential topics include, but are not limited to:

- Integral estimates for differential forms and applications
- Integral estimates for operators and their compositions
- L^p theory of operators and their compositions
- L^p norm and Orlicz norm estimates for differential forms and related operators
- Lipschitz and BMO norm estimates for differential forms and related operators
- A-harmonic equations and Dirac equations
- Operator equations and potential theory
- Dirichlet problems and Poisson's equation

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