Hindawi Publishing Corporation
Journal of Function Spaces and Applications
Volume 2013, Article ID 965091, 1 page
http://dx.doi.org/10.1155/2013/965091

Editorial

Integral and Differential Systems in Function Spaces and Related Problems

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Received 3 June 2013; Accepted 3 June 2013

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As has been seen, integral and differential systems in function spaces are ideal mathematical models in many applied problems stemmed from the real world. They have in recent years been major objects of investigations with fast increasing interest. This special issue is dedicated to the dissemination of current significant progresses and new trends in this field.

This issue is composed of papers that emphasize different aspects of the theory of the integral and differential systems in function spaces and related issues. The topics addressed by these published papers in the special issue include the stability of delay differential systems; the Wiener product on a bosonic Connes space associated to a bilaplacian and the formal Wiener chaos on the path space; multiplicative and additive perturbation of convoluted C-regularized operator families, convoluted C-cosine operator families, and convoluted C-semigroups related to the differential equations in Banach spaces; the local Gevrey regularity of the solutions of the linearized spatially homogeneous Boltzmann equations; the boundedness of some rough bilinear fractional integral on Morrey spaces and modified Morrey spaces; the global bifurcation of positive solutions for semilinear elliptic equations with asymptotically linear function on a unit ball; hybrid gradient-projection algorithm for solving constrained convex minimization problems with generalized mixed equilibrium problems; the pointwise estimates for the sharp function of the maximal multilinear commutators and maximal iterated commutator generalized by m-linear Calderón-Zygmund singular integral operator; and the existence of nontrivial solutions of a quasilinear elliptic equation.

Acknowledgment

We would like to thank all the authors who submitted manuscripts for consideration in this special issue and regret that many could not be accepted. Special thanks go to all the reviewers for their valuable comments, criticism, and suggestions.

Ti-Jun Xiao
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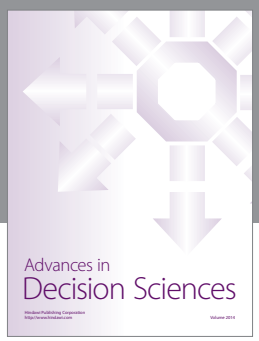
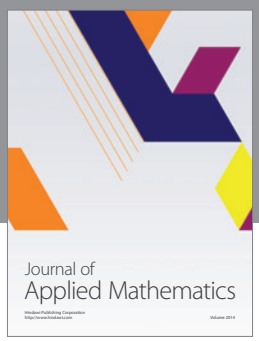
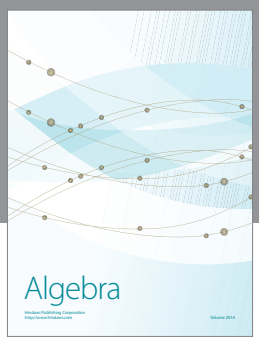
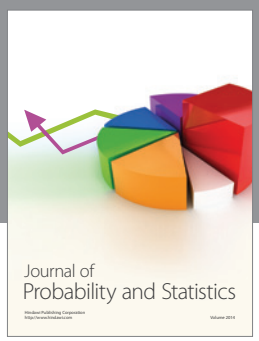
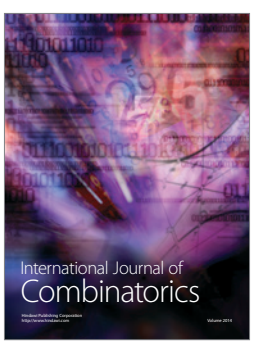
Hong-Kun Xu

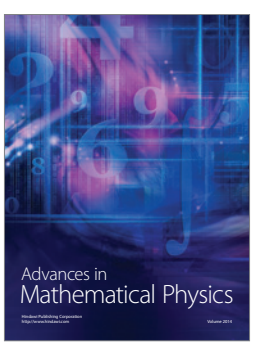


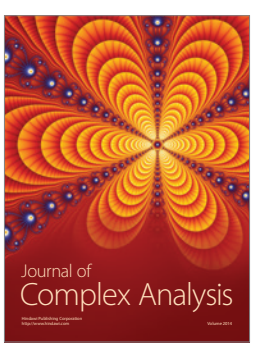


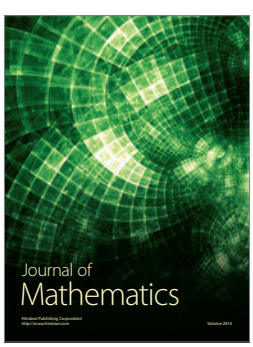


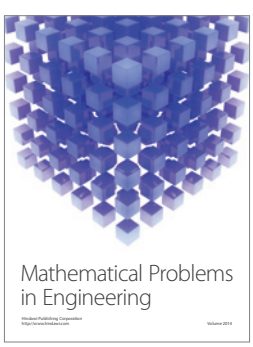


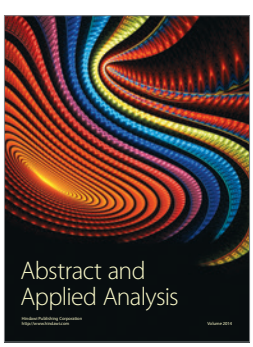


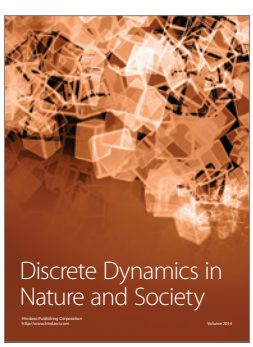


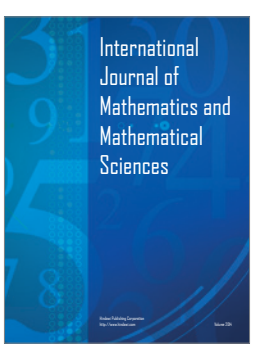


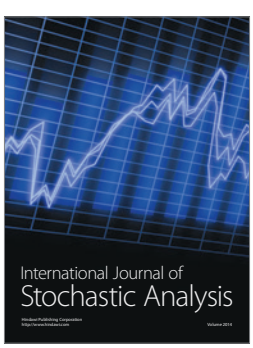












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