Special Issue

Mathematical Aspects of Quantum Field Theory and Quantization

Message from the Guest Editor

The aims of this Special Issue on the mathematical aspects of QFT and quantum mechanics are to present and highlight the most recent research developments in this topic. This Special Issue will specifically target mathematical methods and, more specifically, new solutions to differential equations and special functions of the Schrödinger, Klein–Gordon, Dirac and Proca equations. This differential equation list is not exhaustive. We also want to emphasize perturbations in QFT, the WKB method, more general second-order approximations and, more generally, quantum theories. Indeed, there have recently been mathematical innovations in these areas, notably new classes of special functions that can be used very well for various approaches to quantum perturbations. We hope that the new contributions will also be able to interconnect with these same recent advances. In addition, we are also open to contributions regarding mathematical innovations in quantum gravity. This subject is interesting and in full development; this would complete this Special Issue well.

Guest Editor

Dr. Alexandre Landry

Department of Mathematics and Statistics, Dalhousie University, Halifax, NS B3H 3J5, Canada

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Axioms
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
axioms@mdpi.com

mdpi.com/journal/axioms

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Message from the Editor-in-Chief

Axioms is dedicated to the foundations (structure and axiomatic basis, in particular) of mathematical theories, not only from a crisp or strictly classical sense, but also from a fuzzy and generalized sense. This includes the more innovative current scientific trends, devoted to discover and solve new challenging problems. The prime goal of *Axioms* is to publish first-class, original research articles under an open access policy with minimal fees for the authors. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Humberto Bustince
Department of Statistics, Computer Science and Mathematics, Public University of Navarra, 31006 Pamplona, Spain

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