



an Open Access Journal by MDPI

Representations of Lie Algebras and Their Generalizations

Guest Editor:

Dr. Rutwig Campoamor-Stursberg

Instituto de Matemática Interdisciplinar, Departamento de Geometría y Topología, Universidad Complutense de Madrid, Plaza de Ciencias 3, E-28040 Madrid, Spain

Deadline for manuscript submissions: closed (30 November 2018)

Message from the Guest Editor

It is probably not an exaggeration to state that representation theory of Lie algebras and their generalizations constitutes one of the most recurring techniques encountered in mathematical and physical problems dealing with the linearization of nonlinear phenomena. Beyond structure theory, representations play a prominent role in invariant theory, both algebraic and geometric, as well as in many applications like differential equations, integrable systems, quantum groups, gauge theories, or string theory, among many other topics.

We invite researchers to contribute original papers and review articles concerning currently open problems within the representation theory of Lie algebras, superalgebras, and generalized algebraic structures, such as ternary or nary algebras, Leibniz algebras, etc., also covering applications in other disciplines. Articles describing new methods with strong geometrical and/or computational background are particularly welcome, as well as papers concerning methods of representation theory in chemistry, physics, and engineering sciences.









an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Humberto Bustince

Department of Statistics, Computer Science and Mathematics, Public University of Navarra, 31006 Pamplona, Spain

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions. **High visibility:** indexed within SCIE (Web of Science), dblp, and other databases.

High visibility: indexed within SCIE (Web of Science), dblp, and other database **Journal Rank:** JCR - Q1 (Mathematics, Applied)

Contact Us

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