

GENERALIZED GEOMETRY

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DESCRIPTION

To provide a state-of-the-art picture on the status of generalized geometry and its applications in differential geometry and theoretical physics, specially supergravity and string theory.

Generalized geometry, understood as the study of Courant algebroids and associated geometric structures, together with its applications to differential geometry, supergravity and string theory, where it plays a fundamental role in the description of the supersymmetric backgrounds and dualities of these theories. More specifically, the contributions considered for the volume will cover topics such as generalized complex geometry, holomorphic Courant algebroids, Heterotic supergravity, G2 manifolds with torsion, gerbes, T-duality, Poisson-Lie T-duality or the Hull-Strominger system. All these topics are interconnected through the use of methods and techniques coming from generalized geometry.

Generalized geometry has proven to be a fruitful topic in mathematics with deep ramifications into various areas in geometry, topology and theoretical physics, especially supergravity and string theory. Given the variety of applications, each of them with its particular jargon, goals and approach, it is important to promote the interaction between the different scientific communities working on generalized geometry related research. This will help to create a common ground and framework to understand the different mathematical problems that are currently being studied in the context of generalized geometry as well as the variety of approaches to tackle them. The volume will be inspired by, but not limited to, the workshop "**Generalized geometry and applications**", which was indeed aimed at bringing together researchers working on generalized geometry from different points of view and scientific areas, therefore providing a forum to explore the subject in a richer context. Consequently, a volume dedicated to the subject of generalized geometry covering these recent developments will, in turn, reflect the state of the art and anticipate new research directions in the field.

HOW TO SUBMIT

All submissions to the special issue must be made electronically at <https://www.editorialmanager.com/coman/default.aspx> and will undergo the standard peer review process. When submitting your paper please choose "**Special Issue GENERALIZED GEOMETRY**".

The deadline for the submissions is December 25, 2020 but individual papers will be reviewed and published online on an ongoing basis.