Thomas Strobl

Institute Camille Jordan- Université de Lyon

2d gauge theories and generalized geometry

We review the appearance of generalized geometry in the problem of gauging in two-dimensional sigma models. We start with a Hamiltonian formulation, i.e. is the cotangent bundle of strings, where one could have discovered the Courant-Dorfmann bracket and the other axioms of Courant algebroids merely from the study of current algebras already long ago. We then turn to the construction of action functionals for topological and non-topological sigma models where such currents appear. We end by showing that in two dimensions there is a universal geometrical action functionals which governs all possible gaugings of 2d sigma models with Wess-Zumino term.