

Equivariant BV Formalism for String Worldsheet

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Worldsheet diffeomorphisms play a central role in string perturbation theory. In the BV approach to worldsheet theory, we need the measure on the space of Lagrangian submanifolds to be base with respect to diffeomorphisms. We discuss a general construction of such base forms. In particular, we explain that it is equivalent to constructing a representation of some Differential Graded Lie Algebra, which was previously introduced in the context of current algebras and called Dg. This clarifies the procedure of covariant insertion of vertex operators on the string worldsheet.

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