

1072-17-118

**Marco Aldi\***, aldi@brandeis.edu, and **Reimundo Heluani**. *Dilogarithms, OPE and twisted T-duality*.

We present a new method for the full quantization of the bosonic sigma-model with target a (possibly) twisted nilmanifold. The resulting algebraic structure governing field interactions is a generalization of the notion of lattice vertex algebra. The main novelty is the presence of dilogarithmic singularities in the basic OPEs. We explain the role of T-duality and we show how the factorization structure of the correlators naturally encodes the most basic functional equations satisfied by the dilogarithm. (Received June 23, 2011)