

Frobenius manifolds and quantum groups

Xiaomeng Xu
Massachusetts Institute of Technology

Abstract

In this poster, we introduce an isomonodromic Knizhnik–Zamolodchikov connection with respect to the quantum Stokes matrices, and prove that the semiclassical limit of the KZ type connection gives rise to the Dubrovin connections of semisimple Frobenius manifolds. This quantization procedure of Dubrovin connections is parallel to the quantization from Poisson Lie groups to quantum groups, and is conjecturally formulated as a deformation of Givental’s twisted loop group.