

## 3d holomorphic blocks from the intertwiner of quantum toroidal algebra

*Tuesday, 5 February 2019 11:00 (1 hour)*

The intertwiner of the Fock representation of the quantum toroidal algebra of  $\mathfrak{gl}_1$  type can be identified with the refined topological vertex, which is a building block of 5d lift of the Nekrasov instanton partition function. In general the correlation function of the intertwiners satisfies a difference equation of KZ type, where the associated R-matrix is featured. In this talk I will explain how we can derive generalized KZ equation for quantum toroidal algebra in a simplified setting and show that 3d holomorphic blocks arise as solutions to the equation.

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