QUASI-REFLECTION ALGEBRAS AND AND SPECIAL VALUES OF MULTIPLE POLYLOGARITHM

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Abstract

We study the holonomy of a trigonometric analogue of the Knizhnik-Zamolodchikov equation (on $\mathbb{P}^1 - \{0, \infty\} \cup \mu_N(\mathbb{C})$). It is a generating series for values of multiple polylogarithms at Nth roots of 1, and it satisfies relations generalizing those satisfied by Drinfeld's KZ associator. We then develop the analogue of Drinfeld's theories of associators and the GT group.