

Multiple zeta values and moduli spaces of elliptic curves

Abstract:

The multizeta values (MZVs) are the values of certain iterated integrals on the projective line. We review two constructions of relations between these values, one combinatorial (double shuffle relations, Zagier) and one geometric (based on the monodromy of certain connections, Drinfeld, Le-Murakami), the relations between these systems of relations (Furusho), and the Broadhurst-Kreimer (BK) conjecture, which contains a precise description of the space of formal MZVs. This conjecture involves structure related with modular forms. We shortly present an elliptic analogue of the theory of MZVs, and discuss its possible relation with the BK conjecture.

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