

On some relations for multiple L -values

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Abstract

In this talk, I survey several \mathbb{Q} -linear relations for multiple L -values of Arakawa-Kaneko type. T. Arakawa and M. Kaneko proved in 2004 the so-called derivation relation, which is proved as a corollary of the regularized double shuffle relation. Kaneko firstly formulated an extension of the derivation relation by modeling a Hopf algebra introduced by A. Connes and H. Moscovici. G. Kawashima and I proved the extension of the derivation relation in 2008, which is called the quasi-derivation relation. The cyclic sum formula for multiple L -values is also found recently. I will talk on such relations under the algebraic setup using certain non-commutative algebras.