Title: Expressions of Schur multiple zeta-functions of anti-hook type by zeta-functions of root systems

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We investigate relations among Schur multiple zeta functions and zeta-functions of root systems attached to semisimple Lie algebras. Schur multiple zeta functions are defined as sums over semi-standard Young tableaux. Then, assuming the Young tableaux is of anti-hook shape, we show that they can be written in terms of modified zeta-functions of root systems of type A. Our proof is quite computational, but we also give a pictorial interpretation of our argument in terms of Young tableaux. It is also possible to understand that one of our theorems gives an expression of Schur multiple zeta functions by an analogue of Weyl group multiple Dirichlet series in the sense of Bump et al. By combining with a result of Nakasuji, Phuksuwan and Yamasaki, our theorems yield a new method of finding functional relations among zeta-functions of root systems.

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