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Fakultät für Mathematik, Informatik und Naturwissenschaften

Kolloquium über Reine Mathematik

Einladung zu einem Vortrag

Dienstag, 1. November 2016

17 Uhr s.t., Geom H4

Jun.-Prof. Dr. Simon Lentner
(Universität Hamburg)

Nichols algebra relations appearing in function theory and conformal field theory

Abstract:

A Nichols algebra can be introduced elementary as free algebra with relations given by quantum symmetrizers - it is the natural generalization of symmetric and exterior algebra to arbitrary braidings. In this talk we present a surprising link to certain analytic functions that are generalizations of Selberg integrals: We prove these special functions have a zero whenever the corresponding Nichols algebra has a relation. We conclude by discussing why this fact directly implies that any Nichols algebra acts on conformal field theories associated to its root lattice. In particular this answers a long-standing conjecture of B. Feigin et. al. about quantum groups acting on conformal field theories.

Vor dem Vortrag (ab 16.30 Uhr) stehen im Raum 327 Kaffee und Tee bereit.