



Leibniz
Universität
Hannover

Oberseminar zur Algebra und Algebraischen Kombinatorik

Dr. Torsten Hoge
(Leibniz Universität Hannover)

"The freeness of ideal subarrangements of Weyl arrangements"

The talk is based on joint work with Takuro Abe, Mohamed Barakat, Michael Cuntz and Hiroaki Terao on Weyl arrangements.

A Weyl arrangement is the arrangement defined by the root system of a finite Weyl group. When a set of positive roots is an ideal in the root poset, we call the corresponding arrangement an ideal subarrangement.

Our main theorem asserts that any ideal subarrangement is a free arrangement and that its exponents are given by the dual partition of the height distribution, which was conjectured by Sommers–Tymoczko. In particular, when an ideal subarrangement is equal to the entire Weyl arrangement, our main theorem yields the celebrated formula by Shapiro, Steinberg, Kostant, and Macdonald. Our proof of the main theorem heavily depends on the theory of free arrangements and thus greatly differs from the earlier proofs of the formula.

Montag, 01.06.2015
ab 14:15 Uhr, Raum a410
Hauptgebäude der Leibniz Universität Hannover

Alle Interessierten sind herzlich eingeladen.

Institut für Algebra, Zahlentheorie
und Diskrete Mathematik