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Leibniz
Universität
Hannover

Oberseminar zur Algebra und Algebraischen Kombinatorik

Dr. Christian Weigel
(Universität Gießen)

„Tits arrangements on convex cones“

When considering the geometric representation of a Coxeter group, one obtains a (possibly infinite) arrangement of hyperplanes which simplicially decomposes a convex cone, the Tits cone. Restrictions on hyperplanes of these arrangements are again hyperplane arrangements, but do not necessarily belong to a reflection group. However, they share much of their geometrical structure. We collect this structure in the concept of a Tits arrangement. In particular, Tits arrangements generalise the finite simplicial arrangements in a natural way.

In this talk, we will elaborate the notion of a Tits arrangement and give some examples. We introduce a more general concept of root systems associated to these arrangements to be able to state the crystallographic property in this setting. Furthermore we will point out the connection to Weyl groupoids, which arise as invariants of Nichols algebras and in a natural way give rise to crystallographic Tits arrangements.

Montag, 21.12.2015
ab 14:15 Uhr, Raum a410
Hauptgebäude der Leibniz Universität Hannover

Alle Interessierten sind herzlich eingeladen.

Institut für Algebra, Zahlentheorie
und Diskrete Mathematik