Oberseminar
zur
Algebra und Algebraischen Kombinatorik

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Congruence Normality for Simplicial Hyperplane Arrangements

Simplicial hyperplane arrangements still have much to reveal. In rank 3, it is not known whether the list of simplicial hyperplane arrangements is complete. We provide normals and invariants for arrangements with up to 37 hyperplanes and determine whether the associated posets of regions possess the combinatorial property of "congruence normality." We use methods from oriented matroids, which make the computations possible. This refines the structure of the list, breaking it into three separate combinatorial categories. In particular, we show that arrangements stemming from finite Weyl groupoids have congruence normal posets of regions.

This is joint work with Michael Cuntz and Jean-Philippe Labbé.

Freitag, 04.12.2020
ab 15:00 Uhr
in StudIP, per BBB im e-a410

Alle Interessierten sind herzlich eingeladen.

**Institut für Algebra, Zahlentheorie
und Diskrete Mathematik**