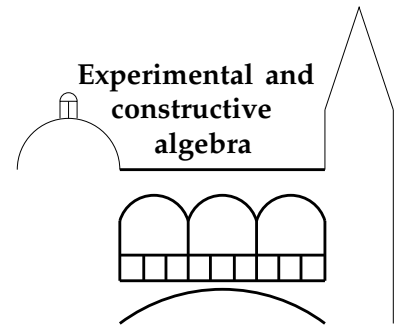


Graduiertenkolleg

Experimentelle und konstruktive Algebra



Kolloquiumsvortrag

Dienstag, 16. Oktober 2018, 14:15 Uhr, Hörsaal IV

THOMAS GERBER (LEHRSTUHL D FÜR MATHEMATIK):
Generalised Mullineux involution and applications

Let S_n be the symmetric group on a set with n elements. Tensoring an irreducible representation of S_n with the sign representation yields another irreducible representation of S_n .

Over \mathbb{C} , we can label the irreducible representations of S_n by the partitions of n , and the above procedure is simply given by taking the transpose of the starting partition.

Over \mathbb{F}_p (with p prime), we can label the irreducible representations of S_n by the p -regular partitions of n , and the above procedure is the so-called Mullineux involution. In 1995, Kleshchev gave a combinatorial formula for computing the Mullineux involution, which can be interpreted in terms of crystals.

In this talk, I will explain how to define a version of the Mullineux involution on multipartitions (= tuples of partitions) using crystals, and I will give representation-theoretic interpretations of this construction. This is joint work with Nicolas Jacon and Emily Norton.

Wir laden alle Interessierten herzlich ein.