



Leibniz
Universität
Hannover

Oberseminar zur Algebra und Algebraischen Kombinatorik

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"What does the complex group algebra tell about a finite group?"

In the representation theory of finite groups, a lot of research has been inspired by a famous list of problems that Richard Brauer presented in 1963. Problem 2 asks: When do nonisomorphic groups have isomorphic group algebras? In the talk, we will focus on the classical representation theory over the complex numbers. The complex group algebra is just a direct sum of matrix rings whose sizes are given by the multiset of dimensions of the complex irreducible representations of the group. The wider questions investigated in this area are then: What do these dimensions tell about the structure of the group? What information can we obtain from just the set of dimensions? Both classical as well as some recent results on these questions will be considered in the talk; deep results of this kind often crucially use the classification of finite simple groups.

Montag, 22.06.2015
ab 14:15 Uhr, Raum a410
Hauptgebäude der Leibniz Universität Hannover

Alle Interessierten sind herzlich eingeladen.

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