



Oberseminar

zur

Algebra und Algebraischen Kombinatorik

Prof. Dr. Wolfgang Willems
(Otto-von-Guericke-Universität Magdeburg)

Block intersection and nilpotent Hall subgroups

By $B_0(G)_p$ we denote the principal block of a finite group G with respect to the prime p .
The talk deals with the following

Conjecture. *If $(B_0(G)_p) \cap (B_0(G)_q) = \{1_G\}$ for a pair of primes $p \neq q$, then G has a nilpotent Hall $\{p, q\}$ -subgroup.*

An easy proof shows that the conjecture has an affirmative answer if G is p - or q -solvable. But there are other examples. For instance, if G is the smallest Janko group J_1 and $\{p, q\} = \{3, 5\}$, then the conjecture also holds true. Using p^* -theory we reduce the problem to almost simple groups. This reduction leads to a proof of the conjecture in case $2 \in \{p, q\}$

Donnerstag 18.07.2019
ab 14:15 Uhr, Raum a410
Hauptgebäude der Leibniz Universität Hannover
Alle Interessierten sind herzlich eingeladen.

Institut für Algebra, Zahlentheorie
und Diskrete Mathematik