In modular representation theory the group algebra of a finite group $G$ over a field of characteristic $p$ can be decomposed as a direct sum of two-sided ideals. These ideals are called $(p)$-blocks. The structure of a block is strongly influenced by the defect group, which is a certain $p$-subgroup of $G$. Therefore, it is an interesting task to determine numerical invariants of blocks with respect to a given defect group.

In this talk we will present some methods and results of the study of 2-blocks with defect groups with exactly three involutions. We will focus on such groups with nontrivial automorphisms of odd order, which were classified by Craven and Glesser. An important tool of this analysis is the $^*$-construction as introduced by Broué and Puig. It allows us to improve existing methods and enhance the understanding of generalized decomposition numbers of blocks.

**Sondertermin:** Dienstag, 02.08.2016
ab 13:15 Uhr, Raum a410
Hauptgebäude der Leibniz Universität Hannover

Alle Interessierten sind herzlich eingeladen.

Institut für Algebra, Zahlentheorie
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