

DATE: Thursday, 21 October
SPEAKER: Britta Späth, Universität Kassel
TIME: 12:10 in Engineering E206
TITLE: Irreducible characters of finite groups and their connection to characters of subgroups

ABSTRACT: Character theory was developed as an aid to study finite groups. For this purpose, we look at the irreducible representations of a finite group G , special group homomorphisms between G and $\mathrm{GL}_n(\mathbb{C})$. The degrees of all irreducible characters provide different values or properties of G , e.g. the order $|G|$. Instead of the representation we study their irreducible characters, which are different for non-equivalent representations and characterize the corresponding representations.

The characters of subgroups can be found using the characters of G , because there are some connections between the irreducible characters of G and the irreducible characters of subgroups. In the case of a normal subgroup, the Clifford-theory provides many different results.