On the Structure of Finite Groups of Characteristic p

Bernd Stellmacher

Abstract: In this talk I will discuss a joint project with G. Parmeggiani and U. Meierfrankenfeld whose goal is to describe the structure of finite groups G of characteristic p (i.e.: $C_G(O_p(G)) \leq O_p(G)$) in terms of the conjugacy class $Bau_p(G)$ and certain subnormal subgroups of G, the Baumann components of G.
The main result will be the factorization

$$G = N_G(W(B))Block(G),$$

where $B \in Bau_p(G)$, $W(B)$ is a non-trivial characteristic subgroup of B (whose definition is independent of G) and $Block(G)$ is a normal subgroup of G, whose structure can be given explicitly.