Title: The influence of $\mathcal{F}_s$-quasinormality of subgroups on the structure of finite groups

Author(s): Xiaolong Yu, Xiaoyu Chen and Wenbin Guo

Let $\mathcal{F}$ be a class of finite groups. A subgroup $H$ of a finite group $G$ is said to be $\mathcal{F}_s$-quasinormal in $G$ if there exists a normal subgroup $T$ of $G$ such that $HT$ is $s$-permutable in $G$ and $(H \cap T)H_G/H_G$ is contained in the $\mathcal{F}$-hypercenter $Z_{\mathcal{F}}^s(G/H_G)$ of $G/H_G$. In this paper, we investigate further the influence of $\mathcal{F}_s$-quasinormality of some subgroups on the structure of finite groups. New characterization of some classes of finite groups are obtained.

Address:
Xiaolong Yu
School of Mathematical Sciences
University of Science and Technology of China
Hefei, 230026
P.R. China

Address:
Xiaoyu Chen
School of Mathematical Sciences
University of Science and Technology of China
Hefei, 230026
P.R. China

Address:
Wenbin Guo
School of Mathematical Sciences
University of Science and Technology of China
Hefei, 230026
P.R. China