

The classification of groups of prime-power order

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The classification of groups of certain types is a central tool in understanding and analysing groups and their applications. A famous result in this direction is the classification of finite simple groups. This result was achieved by a collaborative effort of many mathematicians and it takes up more than 10,000 journal pages.

This talk considers a different type of finite group: the groups whose order is a prime-power. There are many deep and interesting results known on the classification of these groups, but a complete classification is not available. This talk gives a survey on the state of the art of the classification of groups of prime-power order and it discusses the impact of computational group theory towards this project.