Factorized groups and permutability properties

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Abstract

In this talk we will report on factorized groups whose factors are linked by certain permutability properties. The origin of this research arises from an interest in finding criteria for products of supersoluble groups to be supersoluble. After the extensive development carried out by many authors on factorized groups and total permutability, we will post our interest in a weaker permutability property, the so called conditional permutability. We present recent results in this line, focussing mainly on structural properties of the factorized groups under consideration. As an application, we discuss new achievements in the context of formation theory.

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