## Group factorizations and product groups

Hao Yu School of Mathematical Sciences, Capital Normal University 3485676673@qq.com

A group X is said to be properly factorizable if X = GH for two proper subgroups G and H of X. In this case, X is the product group of G and H. In particular, X has an exact factorization if  $G \cap H = 1$ . In 1937, Ore asked if it was possible to describe and classify all exact factorizations for a given finite group X. In fact, there is a dual version of this issue: for two given finite groups G and H, describe and classify all exact product groups of G and H. In this talk, some recent results on group factorizations and product groups will be introduced.

## References

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