

Do we need all Sylow  $p$ -subgroups to cover the  $p$ -elements of a group?

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**Abstract:** Let  $G_p$  be the set of  $p$ -elements of a finite group  $G$ . Do we need all Sylow  $p$ -subgroups of  $G$  to cover? Although this question does not have an affirmative answer in general, our work indicates that the answer is yes more often than one could perhaps expect.

This is a joint work with professors Attila Maróti and Alexander Moretó [1].

- [1] A. Maróti, J. Martínez, A. Moretó, Covering the set of  $p$ -elements in finite groups by Sylow  $p$ -subgroups, *J. Algebra* **638** (2024), 840-861.