

THE INTERSECTION OF SOLVABLE HALL SUBGROUPS IN FINITE GROUPS

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Let G be a finite group and let π be a set of primes. Recall that a subgroup H of G is called a π -Hall subgroup, if all prime divisors of $|H|$ lie in π , while $|G : H|$ is divisible by no prime in π . By $O_\pi(G)$ we denote the π -radical of G . We obtain the following

Theorem. *Let H be a solvable π -Hall subgroup of a finite group G . Then there exist five conjugates of H whose intersection equals $O_\pi(G)$, i.e., there exist $x, y, z, t \in G$ such that $H \cap H^x \cap H^y \cap H^z \cap H^t = O_\pi(G)$.*