On weakly s^*-permutable subgroups of finite groups

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Abstract. Let G be a finite group. A subgroup H of G is called weakly s^*-permutable in G provided that there exists a subnormal subgroup T of G containing H_{sG} such that $G = HT$ and $|H \cap T : H_{sG}|$ is a square-free integer, where H_{sG} is the largest s-permutable subgroup of G contained in H. In this paper, we characterize the solvability of G in terms of certain weakly s^*-permutable subgroups.

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