

**Title:** On  $p$ -hypercyclically embedded subgroups of finite groups

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Let  $G$  be a finite group and  $p$  a prime. A normal subgroup  $E$  of  $G$  is said to be  $p$ -hypercyclically embedded in  $G$  if every  $p$ -chief factor of  $G$  below  $E$  is cyclic. We say that a subgroup  $H$  of  $G$  is generalized  $S\Phi$ -supplemented in  $G$  if  $G$  has a subnormal subgroup  $T$  such that  $G = HT$  and  $(H \cap T)H_{sG}/H_{sG} \leq \Phi(H/H_{sG})$ , where  $H_{sG}$  is the subgroup of  $H$  generated by all those subgroups of  $H$  which are  $s$ -permutable in  $G$ . In this paper, some new characterizations of  $p$ -hypercyclically embeddability of normal subgroups of a finite group are obtained based on the assumption that some primary subgroups are generalized  $S\Phi$ -supplemented in  $G$ .

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