

# 3-LOCAL CHARACTERIZATIONS FOR SOME SMALL FINITE SIMPLE GROUPS

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## 1. ABSTRACT

Recently some of the small finite simple groups have been characterized by their 3-local information. In this talk we will give a short report about these recent characterizations. Among others, we prove the following theorem which characterizes  $M_{11}$ .

**Theorem 1** ( M. Reza Salarian). *Let  $G$  be a finite simple group,  $M \in \text{Syl}_3(G)$  be an elementary abelian group of order 9 such that  $N_G(M)/M \cong SD_{16}$ ,  $C_G(M) = M$  and  $C_G(x) \leq N_G(M)$  for each  $1 \neq x \in M$ . Then  $G \cong M_{11}$ .*

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