

# McKay–Miller–Širáň graphs are lifts of dipoles

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## Abstract

McKay–Miller–Širáň graphs are an infinite family of large highly symmetric graphs of diameter 2 which are defined for any prime power  $q > 2$ . It is known that they are not Cayley graphs and they are vertex-transitive only for  $q = 3, 4$  and  $q = 4k + 1$ .

Šiagiová showed that MMS graphs are lifts of dipoles whenever  $q = 4k + 1$ . We showed that they are lifts of dipoles for all values of  $q$ .