

Zbl 242.05113

Erdős, Paul; Hajnal, András; Milner, E.C.

*Simple one-point extensions of tournaments.* (In English)

*Mathematika, Lond.* 19, 57-62 (1972).

A tournament  $T$  consists of a set of points on which is defined a complete, anti-symmetric, irreflexive binary relation  $\rho$ . A tournament  $T$  is simple if it is impossible to define a non-trivial equivalence relation on the points of  $T$  with the property that if  $x\rho y$  then  $x'\rho y'$  for all pairs of points  $x'$  and  $y'$  that are equivalent to  $x$  and  $y$ , respectively. If  $T$  is a subtournament of  $T'$  and  $|T' - T| = k$  then  $T'$  is a  $k$ -point extension of  $T$ . The authors prove that  $s$  (finite or infinite) tournament  $T$  has a simple 1-point extension except when  $T$  is a 3-cycle of a non-trivial finite transitive tournament with an odd number of points.

*J.W.Moon*

Classification:

05C20 Directed graphs (digraphs)