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On an adjacency property of almost all tournaments. (English) Zbl 1108.05048
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The authors say a tournament T is k -existentially closed (or k -e.c.) if for every ordered pair of disjoint subsets A and B of the nodes of T with $|A \cup B| = k$, there exists at least one node q that beats all nodes of A and loses to all nodes of B . It follows from results of *P. Erdős* and *L. Moser* [Can. Math. Bull. 7, 351–356 (1964; [Zbl 0129.34701](#))] almost all (large) tournaments T are k -e.c. for any fixed integer k . The authors of the present paper show that there exists a 2-e.c. tournament T with n nodes if and only if $n = 7$ or $n \geq 9$.

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MSC:

[05C20](#) Directed graphs (digraphs), tournaments
[05C35](#) Extremal problems in graph theory

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n -existentially closed

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