

[Pokrovskiy, Alexey](#)

**Edge disjoint Hamiltonian cycles in highly connected tournaments.** (English) [Zbl 1405.05097](#)  
[Int. Math. Res. Not. 2017, No. 2, 429-467 \(2017\)](#).

Summary: *C. Thomassen* [[Proc. Lond. Math. Soc. \(3\) 45, 151–168 \(1982; Zbl 0486.05049\)](#)] conjectured that there is a function  $f(k)$  such that every strongly  $f(k)$ -connected tournament contains  $k$  edge-disjoint Hamiltonian cycles. This conjecture was recently proved by *D. Kühn* et al. [[Proc. Lond. Math. Soc. \(3\) 109, No. 3, 733–762 \(2014; Zbl 1302.05069\)](#)] who showed that  $f(k) \leq O(k^2(\log k)^2)$  and conjectured that there is a constant  $C$  such that  $f(k) \leq Ck^2$ . We prove this conjecture. As a second application of our methods, we answer a question of Thomassen about spanning linkages in highly connected tournaments.

**MSC:**

[05C45](#) Eulerian and Hamiltonian graphs

Cited in **3** Documents

**Full Text:** [DOI](#) [arXiv](#)