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Alexandra Ovetsky Fradkin^{*} (aovetsky@math.princeton.edu), Fine Hall, Washington Road, Princeton, NJ 08540, and Paul Seymour. A polynomial algorithm for the edge-disjoint paths problem for tournaments. Preliminary report.

We present a polynomially bounded algorithm to solve the following problem: for fixed $k \ge 0$, given a tournament T and k pairs of vertices of T, decide if there are k mutually edge-disjoint paths of T joining the pairs. This problem is known to be NP-complete for digraphs in general for $k \ge 2$. (Received September 04, 2009)