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K. A. S. Factor, L. J. Langley and S. K. Merz*, Department of Mathematics, University of the Pacific, Stockton, CA 95211. *Tight Bounds for the Split Domination Number of Regular and Nearly Regular Tournaments.*

A set of vertices, S , in a strongly connected digraph D , is split dominating provided it is: 1) dominating and 2) $D[V(D)\setminus S]$ is trivial or not strongly connected. The split domination number of a strongly connected digraph is the minimum cardinality of a split dominating set for that digraph. We show that for any k -regular tournament, the split domination number is at least $\lceil \frac{2k+3}{3} \rceil$. Furthermore, we show that when T is a nearly regular $2k$ -tournament, then the split domination number of T is at least $\lceil \frac{2k}{3} \rceil$. Both bounds are tight. (Received September 15, 2019)