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**Jason Williford\*** (jwillif1@uwyo.edu), University of Wyoming, Department of Mathematics, 1000 E. University Ave., Laramie, WY 82072. *Nonexistence Conditions for Directed Strongly-Regular Graphs.*

A directed strongly-regular graph with parameters  $(v, k, t, \lambda, \mu)$  is a regular digraph where all out-degrees and in-degrees are  $k$ , each vertex is in  $t$  2-cycles, satisfying the following: if there is an arc from  $x$  to  $y$  then there are  $\lambda$  directed 2-paths from  $x$  to  $y$ , and if there is no arc from  $x$  to  $y$  then there are  $\mu$  directed 2-paths from  $x$  to  $y$ . Similar to strongly-regular graphs, there are many parameter sets for which the question of existence/nonexistence is open. In this talk we will survey the known nonexistence conditions, and give a couple of new conditions which rule out certain parameter sets. (Received August 11, 2015)