Gi-Sang Cheon, Ji-Hwan Jung* (jh56k@skku.edu), Bumtle Kang and Suh-Ryung Kim.

Riordan digraphs and their primitivity.

Two vertices u and v are called *strongly connected* if there are directed walks from u to v and from v to u. A digraph D is strongly connected if each pair in V(D) is strongly connected. A digraph D is called *primitive* if there exists an integer k > 0 such that for all ordered pairs of vertices $i, j \in V(D)$, there is a walk from i to j with length k.

In this talk, we use the theory of Riordan matrices to define the notion of Riordan digraphs and then we study their primitivity. (Received September 23, 2018)