

1121-15-154

M. Boij, A. Iarrobino, L. Khatami* (khatamil@union.edu), **B. Van Steirteghem** and **R. Zhao**. *Equations of loci in tables of commuting Jordan types.*

The Jordan type of a nilpotent matrix is the partition giving the sizes of the Jordan blocks in the normal Jordan form of the matrix. In this talk we discuss all partitions that have a fixed partition Q as the generic Jordan type in their nilpotent commutator. We report on a joint work with A. Iarrobino, B. Van Steirteghem and R. Zhao in which we provide a complete description of all such partitions for a partition Q with at most two parts. In particular we arrange all such partitions in a table that we denote by $\mathcal{T}(Q)$. We then report on an ongoing joint project with M. Boij, A. Iarrobino, B. Van Steirteghem and R. Zhao in which we study the equations of loci in $\mathcal{T}(Q)$. (Received July 17, 2016)