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Ryan K Therkelsen* (rtherke@ncsu.edu), Department of Mathematics, North Carolina State University, Box 8205, Raleigh, NC 27695-8205. *Order in the Conjugacy Poset of a Reductive Monoid*. Preliminary report.

Order in the Conjugacy Poset of a Reductive Monoid

Given a reductive monoid M with Renner monoid R and Gauss-Jordan elements $\mathcal{G}J$, there is associated a finite poset (\tilde{R}, \leq) where $\tilde{R} = \mathcal{G}J / \sim$ and \sim is conjugacy in R . \tilde{R} can be decomposed into classes indexed by idempotents from the cross-section lattice of M . We briefly describe this decomposition and report on new results describing the order \leq , both within and between these classes. (Received July 29, 2008)