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Eric D. Bancroft* (eric_bancroft@ncsu.edu), Department of Mathematics, Box 8205, North Carolina State University, Raleigh, NC 27695-8205. *Parabolic Monoids of Matrices.*

The Renner decomposition for reductive, algebraic monoids is an analogue of the Bruhat decomposition. In the monoid of upper triangular matrices, $\overline{B} = T_n(k)$, Renner's decomposition gives $\overline{B} = \coprod_{r \in R^+} BrB$, where B is the Borel subgroup of upper triangular invertible matrices and R^+ is the set of upper triangular partial permutation matrices. Then $\overline{B} \supseteq \overline{P}$, where \overline{P} is the parabolic monoid of block upper triangular matrices. We look at conditions for elements of \overline{P} to be a product of idempotents in \overline{P} and describe this product for several cases. (Received September 17, 2010)