1083-06-23   **Ryan Therkelsen*** (`rtherkelsen@bellarmine.edu`). *Some Properties of Generalized Partitions Relating to the Rook Monoid.*

For an integer n, a partition is usually described as a sequence of positive integers that sum to n, recorded in non-increasing order. In this talk, I will describe what happens when the non-increasing convention is relaxed (in a specific way). The poset consisting of these "generalized partitions", under dominance order, has some nice properties and arises naturally in the study of a certain decomposition of the set of $n \times n$ matrices. This decomposition is most easily described in terms of conjugacy classes of the Gauss-Jordan elements of the rook monoid. (Received July 17, 2012)