1092-06-158   **Ryan Therkelsen*** (`rtherkelsen@bellarmine.edu`). *Poset Properties for Generalized Partitions.* Preliminary report.

Given a positive integer n, a partition is usually described as a sequence of (positive) integers that sum to n, recorded in non-increasing order. Relaxing the non-increasing convention (in a specific way) leads to new objects we've called "generalized partitions". The partially ordered set consisting of these generalized partitions, under dominance order, is quite different than the poset of the "traditional" partitions under dominance order, though some important properties are preserved. I will examine a few of the differences between these posets as well as an important structural similarity. Additionally, a description of how the generalized partitions naturally arise in the study of a certain decomposition of the set of $n \times n$ matrices will be given, along with questions for future consideration. (Received August 07, 2013)