

## Hyper $m$ -ary Partition Sequences

Shannon Lockard, Bridgewater State University

Hyper  $m$ -ary partitions are integer partitions whose parts are powers of  $m$  and where each part appears at most  $m$  times. Several authors have given congruences and other arithmetic properties of this family of restricted partitions. In this talk, we will give a bijection that shows that the hyper  $m$ -ary partition sequence is a subsequence of the hyper  $(m + 1)$ -ary partition sequence. We will then generalize this result to show that the hyper  $m_1$ -ary partition sequence is a subsequence of the hyper  $m_2$ -ary partition sequence for any  $2 \leq m_1 < m_2$ .

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