

A Function on the Space of Integer Partitions

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An integer partition $\lambda = (\lambda_1, \dots, \lambda_k)$ of a positive integer n is just sequence of positive integers such that $\sum \lambda_i = n$. Given any $\lambda \vdash n$, we can form a new partition by simply subtracting 1 from each entry of λ and, adding the length of λ as a new entry, and then rearrange the entries in non-increasing order. For example $(4, 2, 2, 1)$ becomes $(4, 3, 1, 1, 0)$. In this talk, we'll explore some of the phenomena encountered while applying this process iteratively, and arrive at some interesting and counterintuitive results.