

Counting conjugates of colored compositions

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The conjugation of compositions has been extensively studied by MacMahon and Munagi. In this talk, we develop a conjugation rule for cyclic n -color compositions. For a fixed ℓ , we identify and enumerate the subset of self-conjugate compositions and establish a bijection between these and the set of cyclic regular compositions of ℓ with only odd parts, as well as establishing their generating function. In addition, we characterize sets of mirrored conjugates, by drawing a connection to palindromic compositions.

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