Decomposition of Necklaces

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Dedicated to the memory of Gian-Carlo Rota: teacher and friend

\textbf{Abstract}. This work originates from a combinatorial understanding of a branching property of MSS (Metropolis-Stein-Stein) sequences in symbolic dynamics. It is known that MSS sequences are in one-to-one correspondence with equivalence classes of primitive necklaces on two colors under the exchange of colors. We present a branching property of primitive self-complementary necklaces, leading to a combinatorial explanation of an analogous property of MSS sequences.

\textit{Keywords}: necklaces, MSS sequences, symbolic dynamics, discrete dynamical systems

\textbf{References}