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*Expressions Arising From a Coin-Tossing Scenario Involving Pairs of Consecutive Heads*,

**Abstract**

In this article we study a combinatorial scenario which generalizes the well-known problem of enumerating sequences of coin tosses containing no consecutive heads. It is shown how to derive formulas enumerating, for a fixed value of $k$, the sequences of length $n$ containing exactly $k$ distinct pairs of consecutive heads. We obtain both exact expressions and asymptotic relations.