

Quick testing of random variables

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Abstract

Let ξ be a random integer vector, having uniform distribution

$$\mathbf{P}\{\xi = (i_1, i_2, \dots, i_n) = 1/n^n\} \text{ for } 1 \leq i_1, i_2, \dots, i_n \leq n.$$

A realization (i_1, i_2, \dots, i_n) of ξ is called *good*, if its elements are different. We present efficient comparison-based algorithms which decide whether a given realization is good [1, 2, 3, 4, 5, 6, 7].

Keywords: random sequences, effective algorithms

MSC 2010: 68Q25, 68Q87, 68R05

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