Testing of uniformly distributed vectors

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Let $n \geq 1$ be an integer, and ξ be a random vector, having uniform distribution $P\{\xi = (i_1, i_2, \ldots, i_n)\} = 1/n^n$ for $1 \leq i_1, i_2, \ldots, i_n \leq n$. A realization $(i_1, i_2, \ldots, i_n)$ of ξ is called *good*, if its elements are different. We present and analyse two algorithms (LINEAR and BACKWARD [3,4]) which decide whether a given realization is good [1,2,3,4,5]. The research is supported by the project TÁMOP-4.2.1/B-09/1/KMR-2010-0003 of Eötvös Loránd University.

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