Testing of uniformly distributed vectors

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Let ξ be a random vector, having uniform distribution $\mathbf{P}\{\xi = (i_1, i_2, \dots, i_n) = 1/n^n\}$ 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 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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