

ON THE ACCURACY OF GAUSSIAN APPROXIMATION IN HILBERT SPACE

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This article is a continuation of the authors' paper [1] with a new approach to studying the accuracy of order $O(1/n)$ of Gaussian approximation in Hilbert space. In contrast to [1], we now study a more general case of the class of sets on which the probability measures are compared, namely, the class of balls with arbitrary centers. The resultant bound depends on the thirteen greatest eigenvalues of the covariance operator T in explicit form; moreover, this dependence is sharper as compared to the bound of [2].

Key words and phrases: Gaussian approximation in Hilbert space, eigenvalues of the covariance operator, discretization of a probability distribution, conditionally independent random variables.

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