

## **Generalized Normal Distribution Law of Errors**

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This paper describes a more precise method for statistical treatment of results of repeated measurements, which is based on the generalized normal distribution law of random errors. The paper also presents physical grounds of adequacy of this distribution to the nature of random errors of measurements. Statistical estimates of parameters and a distribution density form are theoretically substantiated. A procedure for treating results of repeated measurements by statistical means is outlined and compared with that stated in GUM. The results obtained when evaluating this method on a number of the VNIIM's standards are given.

Application of the suggested method may yield a significant effect where a measurement result has to be obtained with the maximum possible accuracy.