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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 4889-2008

Replacing GB/T 4889-1985

**Statistical interpretation of data -- Techniques of estimation and
tests relating to means and variances of normal distribution**

数据的统计处理和解释 正态分布均值和方差的估计与检验

(English Translation)

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Foreword

This revised standard adopts the International Standard ISO 2854. 1976. This standard and ISO 2854. 1976 as compared to the main changes in the technical content to include.

--- The ISO carved in two chapters of the methods and examples to Article narration, easy to understand;

--- Description Table C in many other table, a large number of previously omitted the foregoing table the same repetitive description;

--- The normality test section covers omit;

--- Paired data to compare the contents omitted;

--- Structural re-arrangement, a method related to the back of each one illustrative example;

This standard replaces GB/T 4889-1985. This standard and GB/T 4889-1985 compared to changes in the technical content include.

--- According to GB/T 1.1-2000 "Standardization Guide Part 1. Standard structure and write rules," the requirements of the standard format it has been revised;

--- Increased terminology, symbols and definitions;

--- The sample size to sample size;

--- Structural re-arrangement, a method related to the back of each one illustrative example;

The Standard Appendix A and Appendix B are normative.

Application of this standard by the National Standardization Technical Committee on statistical methods and focal points.

This standard was drafted. East China Normal University, China National Institute of Standardization, Beijing University, the Ministry of Railways.

1 Scope

Generally covered by this standard normal distribution.

This standard applies to the overall mean and variance estimation or testing.

2 Normative references

The following documents contain provisions which, through reference in this standard to become the standard terms. For dated references, all subsequent Amendments (not including errata content) or revised edition are not suitable for this standard. However, according to the study encourages the parties to the agreement are Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

Statistical interpretation of normality test GB/T 4882-2002 data ISO 3534-1:2006 Statistics Vocabulary and symbols - Part 1. General statistical terms and terms used in probability
ISO 3534-2:2006 Statistics Vocabulary and symbols - Part 2. Applied Statistics

3 Terms, definitions and symbols

ISO 3534-1:2006 and ISO 3534-2:2006 as well as to determine the terms and definitions of the following terms, definitions and symbols apply to this standard quasi. For ease of reference, certain terms are taken directly from the above criteria.

3.1 Terms and Definitions

3.1.1

In hypothesis testing, the null hypothesis is true and reject the null hypothesis that the maximum value of (committing type I error) probability.

Note 1: The case of the two-sided test, the significance level α is the null hypothesis is true and reject the null hypothesis of probability; the case of one-sided test, significance level α is the maximum value of the probability.

Note 2: The value of α shall be based on the user is ready to bear the risk of selecting, in practice, α is often taken as 0.05 or 0.01. Due to a possible hypothesis $\alpha = 0.05$ was rejected at $\alpha = 0.01$ and when not rejected, then the following statement is appropriate. "null hypothesis at significance level $\alpha = 0.05$ is lower Reject ", or " null hypothesis at significance level $\alpha = 0.01$ at not rejected. "

Note 3: Particular attention there is a second type of error, but an error when the null hypothesis reject the null hypothesis is guilty of this mistake. See terminology on statistical tests ISO 3534-1:2006.

3.1.2

1- α

Parameters are estimated confidence interval contains the true value of the probability parameter.

Note 1: The confidence level is usually taken 0.95, 0.99, namely $\alpha = 0.05$ or $\alpha = 0.01$.

3.1.3