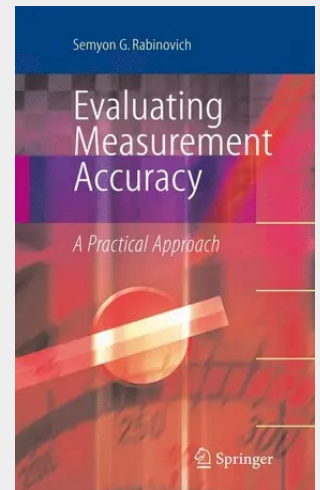


## Evaluating Measurement Accuracy

A Practical Approach

"Evaluating Measurement Accuracy" is intended for anyone who is concerned with measurements in any field of science or technology. It reflects the latest developments in metrology and offers new results, but is designed to be accessible to readers at different levels: meteorologists, engineers and experimental scientists who use measurements as tools in their professions, graduate and undergraduate students in the natural sciences and engineering, and technicians performing complex measurements in industry, quality control, and trade. The material of the book is presented from the practical perspective and offers solutions and recommendations for problems that arise in conducting real-life measurements. This inclusion is a notable and unique aspect of this title as complex measurements done in industry and trade are often neglected in metrological literature, leaving the practitioners of these measurements to devise their own ad-hoc techniques.

The goal of Evaluating Measurement Accuracy: A Practical Approach is to present methods for estimating the accuracy of measurements performed in industry, trade, and scientific research. Although multiple measurements are the focus of current theory, single measurements are the ones most commonly used. This book answers fundamental questions not addressed by present theory, such as how to discover the complete uncertainty of a measurement result. In developing a general theory of processing experimental data, this book, for the first time, presents the postulates of the theory of measurements. It introduces several new terms and definitions about the relationship between the accuracy of measuring instruments and measurements utilizing these instruments. It also offers well-grounded and practical methods for combining the components of measurement inaccuracy. From developing the theory of indirect measurements to proposing new methods of reduction in place of the traditional ones, this work encompasses the full range of measurement data processing. It includes many solid examples that exemplify typical problems encountered in measurement practice, from general theory to practical applications. As a result, Evaluating Measurement Accuracy serves as an inclusive reference work for data processing of all types of measurements: single and multiple, dependent and independent indirect, combined, and simultaneous. It is intended as a working tool for experimental scientists and engineers of all disciplines who work with instrumentation. It is also a good tool for undergraduate and graduate natural science and engineering students and for technicians performing complex measurements in industry.



**117,69 €**

109,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

**Artikelnummer:** 9781441914552

**Medium:** Buch

**ISBN:** 978-1-4419-1455-2

**Verlag:** Springer Netherlands

**Erscheinungstermin:** 22.12.2009

**Sprache(n):** Englisch

**Auflage:** 1. Auflage, 2009

**Produktform:** Gebunden

**Gewicht:** 1280 g

**Seiten:** 272

**Format (B x H):** 155 x 235 mm

