Record Nr. UNINA9910778261503321 Advanced mathematical & computational tools in metrology VII **Titolo** [[electronic resource] /] / editors, P. Ciarlini ... [et al.] Pubbl/distr/stampa New Jersey, : World Scientific, c2006 **ISBN** 1-281-91932-2 9786611919320 981-277-418-1 Descrizione fisica 1 online resource (384 p.) Collana Series on advances in mathematics for applied sciences;; v. 72 Altri autori (Persone) CiarliniP Disciplina 530.8 Soggetti Measurement Physical measurements Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Contents : Foreword ; Full Papers Modeling Measurement Processes in Complex Systems with Partial Differential Equations: From Heat Conduction to the Heart ; Mereotopological Approach for Measurement Software Data Evaluation of Key Comparisons Involving Several Artefacts Box-Cox Transformations and Robust Control Charts in SPC Multisensor Data Fusion and Its Application to Decision Making ; Generic System Design for Measurement Databases - Applied to Calibrations in Vacuum Metrology Bio-Signals and a Template System Evaluation of Repeated Measurements from the Viewpoints of Conventional and Bayesian Statistics Detection of Outliers in Interlaboratory Testing ; On Appropriate Methods for the Validation of Metrological Software ; Data Analysis - A Dialogue with the Data **Contributed Papers** A Virtual Instrument to Evaluate the Uncertainty of Measurement in the Calibration of Sound Calibrators Intercomparison Reference Functions and Data Correlation Structure : Validation of Soft Sensors in Monitoring Ambient Parameters **Evaluation of Standard Uncertainties in Nested Structures**

Measurement System Analysis and Statistical Process Control

; A Bayesian Analysis for the Uncertainty Evaluation of a Multivariate Non Linear Measurement Model

; Method Comparison Studies between Different Standardization Networks

Convolution and Uncertainty Evaluation

Sommario/riassunto

This volume collects the refereed contributions based on the presentations made at the Seventh Workshop on Advanced Mathematical and Computational Tools in Metrology, a forum for metrologists, mathematicians and software engineers that will encourage a more effective synthesis of skills, capabilities and resources. The volume contains articles by world renowned metrologists and mathematicians involved in measurement science and, together with the six previous volumes in this series, constitutes an authoritative source of the mathematical, statistical and software tools necessary in modern met