

## Table of Contents

### Foreword

#### • **General Papers**

**M.G.Cox**, Survey on algorithms and metrology applications:  
discrete processes

**N.Bellomo and L.Preziosi**, Mathematical problems in metrology:  
modelling and solution methods

**I.Galligani**, Solving linear models for data analysis on parallel computers

**G.Bortolan**, Inference with the fuzzy logic

#### • **Numerical Methods and Modelling**

**V.Casulli and E.Bertolazzi**, Semi-implicit numerical methods  
for convection–diffusion equations

**T.Scapolla**, The finite elements technique: theory, procedures and applications

**M.Morandi Cecchi**, Approximation methods in curves and surfaces  
generation

**E.Canuto**, Estimation problems in the field of dimensional metrology:  
methodology and experience

**B.P.Butler, A.B.Forbes and P.M.Harris**, Geometrical tolerance  
assessment problems

**A.Morro**, Wave propagation in dissipative solids

**L.Gori**, Splines and Cauchy principal value integrals

**S.Denasi, A.Premoli and M.L.Rastello**, Computer-aided solution of  
integral equations in measurements

**J.W.Müller**, Applied modulo counting

#### • **Data analysis**

**D.Vecchia and J.Splett**, Outlier-resistant methods for estimation  
and model fitting

**W.Bich and P.Tavella**, Comparison calibrations in metrology: a survey

**P.C. Cresto**, Self-calibration with application to CMMs geometry error correction

**D.B.Percival**, An introduction to spectral analysis and wavelets

**F.Sacerdote**, Mathematical models for optimal filtering and forecasting in time  
series analysis

**J.W.Müller**, Some mathematical problems in counting statistics

**R.B.Frenkel**, Performance of standards: intercomparison, treatment of  
correlations, detection of laboratory offsets and outliers, long-term  
assessment of an ensemble of standards

**P.Ciarlini, G.Regoliosi and F.Pavese**, Non-parametric bootstrap with  
application to metrological data

• **Measurement software and its validation**

**J.Kok**, Validation of metrology reference software

**M.G.Cox**, Classification of mathematical software for metrology

**A.B.Forbes**, Mathematical software for metrology: meeting the needs of the metrologist

**D.Richter**, Software quality assurance in metrology

• **Short communications**

**M.M.Cerimele, F.Pistella and J.Spisiak**, Simulation of the cooling phase of dynamic thermal conductivity experiments

**V.J.Sanchez, B.G.Ruiz**, Evaluation of the relief errors as a function of parametrization errors in measuring sculptured surfaces

**A.Montefusco, C.Colli, and M.Maffé**, ARX: an optimal parametric stochastic filter