



6th International Workshop

on

Analysis of Dynamic Measurements, June 22-23, 2011

Gothenburg, Sweden

Organizers **P Hessling (SP), C Elster (PTB) , T Esward (NPL)**

Venue: **Chalmers Conference Centre, Chalmers University of Technology,
Gothenburg, Sweden.**

Programme

June 22

12:45

Registration

13:15

Opening and introduction (P. Hessling, C. Elster, T. J. Esward)

Session 1:

Mathematical and Computational Tools (Chair: P. Hessling)

13:00

R. Emardson (SP)
Information Fusion Navigation Algorithms

13:30

G. A. Kyriazis (INMETRO)
A simplified derivation of scalar Kalman filter using Bayesian probability theory

13:50

A. Dienstfrey* and Paul Hale (NIST)
Dynamic Calibration for Dynamic Metrology

14:10

Y. Jung (Linköping University)
Estimation of inverse nonlinear dynamics - applied to an outphasing radio frequency power amplifier

14:30 – 15:00 Coffee break

Session 2: Uncertainty evaluation (Chair: C. Elster)

15:00 N. Fischer* (LNE) and L. Le Brusquet (Supélec)
Estimation of a confidence region of a dynamic measurement

15:30 J. Martinsson (LKAB Sweden)
Bayesian Hypocentre and Uncertainty Region Estimation of Mining Induced Seismicity

15:50 A. Link*, S. Eichstädt, and C. Elster (PTB)
Comparison of GUM-S1 and polynomial chaos for the calculation of dynamic measurement uncertainty

16:10 Z. L. Warsza (PIAP)
Notice on uncertainty type A evaluation in dynamic measurements

16:30 Closing discussion, appointments for informal meetings

17:00 End of day 1

June 23

8:45 **Registration**

Session 3: Applications (Chair: N. Fischer)

9:00 T. Bruns (PTB)
The European way to reliable dynamic measurements

9:30 C. Matthews*, S. Downes, T. J. Esward, A. Wilson (NPL), S. Eichstädt and C. Elster (PTB)
Shock tube based dynamic calibration of pressure sensors

9:50 S. Eichstädt*, C. Elster (PTB), C. Matthews and T. J. Esward (NPL)
Mathematical and Statistical Modelling for the EMRP project “Traceable dynamic measurement of mechanical quantities”

10:10 K. Shirono*, H. Tanaka and K. Ehara (NMIJ)
Optimization of feedback control for stochastically diffusive property

10:30 – 11:00 Coffee break

Session 4: Applications (Chair: T. J. Esward)

- 11:00 F. Moschas, P. Psimoulis and S. Stiros* (Patras University)
Measurement of high-frequency oscillations of bridges with GPS and robotic theodolites
- 11:20 C. Schlegel (PTB)
Sinusoidal Force Calibration at PTB
- 11:50 M. Lancini*, L. Solazzi, C. Petrogalli , I. Bodini, D. Vetturi (University of Brescia)
Vibration-based diagnostics on a rolling contact fatigue test bench
- 12:10 End of workshop