

Advances in Nonlinear State Estimation

Tuesday, July 1, 2008, 10:30 AM – 12:10 PM, RHEINSAAL II

Uwe Hanebeck (*Intelligent Sensor-Actuator-Systems Lab, Institute of Computer Design and Fault Tolerance, Universität Karlsruhe (TH), Germany*)



10:30

A Novel Gaussian Sum Filter Method for Accurate Solution to Nonlinear Filtering Problem

Gabriel Terejanu (University at Buffalo, USA), Puneet Singla (University at Buffalo, USA), Tarunraj Singh (University at Buffalo, USA), Peter Scott (University at Buffalo, USA)



10:50

Progressive Gaussian Mixture Reduction

Marco Huber (Universität Karlsruhe (TH), Germany), Uwe Hanebeck (Universität Karlsruhe (TH), Germany)



11:10

Performance Comparison of Nonlinear Filters for Indoor WLAN Positioning

Hui Wang (Siemens, Germany), Dietrich Brunn (Universität Karlsruhe (TH), Germany), Andrei Szabo (Siemens, Germany), Joachim Bamberger (Siemens, Germany), Uwe Hanebeck (Universität Karlsruhe (TH), Germany)



11:30

The Sliced Gaussian Mixture Filter for Efficient Nonlinear Estimation

Vesa Klumpp (Universität Karlsruhe (TH), Germany), Felix Sawo (Universität Karlsruhe (TH), Germany), Uwe Hanebeck (Universität Karlsruhe (TH), Germany), Dietrich Fränken (EADS Germany)



11:50

Nonlinear Bayesian Estimation with Convex Sets of Probability Densities

Benjamin Noack (Universität Karlsruhe (TH), Germany), Vesa Klumpp (Universität Karlsruhe (TH), Germany), Dietrich Brunn (Universität Karlsruhe (TH), Germany), Uwe Hanebeck (Universität Karlsruhe (TH), Germany)

Information Fusion in Sensor Networks

Tuesday, July 1, 2008, 1:10 PM – 2:50 PM, RHEINSAAL II

Uwe Hanebeck (*Intelligent Sensor-Actuator-Systems Lab, Institute of Computer Design and Fault Tolerance, Universität Karlsruhe (TH), Germany*)



13.10

Decentralised particle filtering for multiple target localisation and tracking in wireless sensor

Lee-Ling Ong (National University of Singapore, Singapore), Tim Bailey (University of Sydney, Australia), Ben Upcroft (The University of Queensland, Australia), Hugh Durrant-Whyte (University of Sydney, Australia)



13:30

Priority List Sensor Scheduling using Optimal Pruning

Marco Huber (Universität Karlsruhe (TH), Germany), Uwe Hanebeck (Universität Karlsruhe (TH), Germany)



13:50

**Incremental Recursive Prediction Error
Algorithm for Parameter Estimation in Sensor
Networks**

*SundharRam Srinivasan (University of Illinois at
Urbana-Champaign, USA), Venugopal Veeravalli
(University of Illinois at Urbana-Champaign, USA),
Angelia Nedic (University of Illinois at Urbana-
Champaign, USA)*



14:10

**Optimal scheduling of mobile sensor networks
for detection and localization of stationary
contamination sources**

*Maciej Patan (University of Zielona Gora, Poland),
Dariusz Ucinski (University of Zielona Gora, Poland)*



14:30

**Simultaneous State and Parameter Estimation of
Distributed-Parameter Physical Systems based
on Sliced Gaussian Mixture Filter**

*Felix Sawo (Universität Karlsruhe (TH), Germany),
Vesa Klumpp (Universität Karlsruhe (TH), Germany),
Uwe Hanebeck (Universität Karlsruhe (TH),
Germany),*