

# **16th IFAC Symposium on System Identification 2012**

**Brussels, Belgium  
11-13 July 2012**

**Volume 1 of 2**

**ISBN: 978-1-62276-229-3**

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



**Some format issues inherent in the e-media version may also appear in this print version.**

Copyright© (2012) by Elsevier Limited  
All rights reserved.

Printed by Curran Associates, Inc. (2012)

For permission requests, please contact the publisher, Elsevier Limited  
at the address below.

Elsevier Limited  
The Boulevard, Langford Lane  
Kidlington OX5 1GB, United Kingdom

Phone: +44 (0)1865 844640  
Fax: +44 (0)1865 843912

Email: [eurobkinfo@elsevier.com](mailto:eurobkinfo@elsevier.com)

**Additional copies of this publication are available from:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: 845-758-0400  
Fax: 845-758-2634  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)



IFAC



July 2012, Brussels, Belgium  
16th IFAC Symposium on System Identification

## Table of Contents

16th IFAC Symposium on System Identification  
11-13 July, 2012, Brussels, Belgium



## Content List of 16th IFAC Symposium on System Identification

### Technical Program for Wednesday July 11, 2012

<b>WeP1PI</b>	Copper Hall
<b>Plenary Session 1 - Steinbuch M., Advanced Control of High Tech Systems</b> (Plenary Session)	
Chair: Schoukens, Johan	Vrije Univ. Brussel
08:30-09:30	WeP1PI.1
<i>Advanced Control of High Tech Systems</i> , pp. 1-1.	
Steinbuch, Maarten	Eindhoven Univ. of Tech.
<b>WeA01</b>	Copper Hall
<b>Block Oriented Nonlinear Identification 1</b> (Regular Session)	
Chair: Rojas, Cristian	ACCESS Linnaeus Center, KTH
Co-Chair: Marconato, Anna	Vrije Univ. Brussel
10:00-10:20	WeA01.1
<i>A Unified Approach for the Identification of SISO/MIMO Wiener and Hammerstein Systems</i> , pp. 2-6.	
Ikhouane, Faycal	Univ. Pol. de Catalunya
Giri, Fouad	GREYC UMR CNRS - Univ. de Caen
10:20-10:40	WeA01.2
<i>Identification of Linear Systems with Binary Outputs Using Short Independent Experiments</i> , pp. 7-12.	
Depraetere, Bruno	Katholieke Univ. Leuven
Stoev, Julian	Flanders' MECHATRONICS Tech. Centre
Pinte, Gregory	Flanders' MECHATRONICS Tech. Centre (FMTC), Leuven
Swevers, Jan	K. U. Leuven
10:40-11:00	WeA01.3
<i>Initial Estimates for the LFR Nonlinear Model Structure Via the Best Linear Approximation</i> , pp. 13-18.	
Vanbeylen, Laurent	Vrije Univ. Brussel
11:00-11:20	WeA01.4
<i>Frequency Identification of Nonparametric Hammerstein-Wiener Systems with Output Backlash Operator</i> , pp. 19-24.	
Rochdi, Youssef	Univ. of Cadi Ayyad - FST MARRAKECH Morocco
Giri, Fouad	GREYC UMR CNRS - Univ. de Caen
Chaoui, Fatima-Zahra	ENSET
11:20-11:40	WeA01.5
<i>Two-Stage Refined Instrumental Variable Method for Identifying Hammerstein-Wiener Continuous-Time Models in Closed Loop</i> , pp. 25-30.	
Ni, Boyi	Nancy Univ.
Gilson, Marion	Nancy-Univ.
Garnier, Hugues	Univ. de Lorraine
11:40-12:00	WeA01.6
<i>Iterative Method in the Identification of Block-Oriented Systems Based on Biconvex Optimization</i> , pp. 31-36.	
Li, Guoqi	Nanyang Tech. Univ.
Wen, Changyun	Nanyang Tech. Univ.
Zheng, Wei Xing	Univ. of Western Sydney
Zhao, Guangshe	School of Aerospace, Xi'an Jiaotong Univ.
<b>WeA02</b>	Meeting Studio 201 A/B

### Frequency Domain Identification (Regular Session)

Chair: McKelvey, Tomas	Chalmers Univ. of Tech.
Co-Chair: Vandersteen, Gerd	Vrije Univ. Brussel
10:00-10:20	WeA02.1
<i>User Choices for Nonparametric Preprocessing in System Identification</i> , pp. 37-42.	
Schoukens, Johan	Vrije Univ. Brussel
Vandersteen, Gerd	Vrije Univ. Brussel
Gevers, Michel	Univ. catholique de Louvain
Pintelon, Rik	Vrije Univ. Brussel
Rolain, Yves	Vrije Univ. Brussel
10:20-10:40	WeA02.2
<i>Non-Parametric Frequency Function Estimation Using Transient Impulse Response Modelling</i> , pp. 43-48.	
Hägg, Per	KTH Royal Inst. of Tech.
Hjalmarsson, Håkan	KTH
10:40-11:00	WeA02.3
<i>Non-Parametric Frequency Response Estimation Using a Local Rational Model</i> , pp. 49-54.	
McKelvey, Tomas	Chalmers Univ. of Tech.
Guérin, Guillaume	ENSEIRB-MATMECA, Univ. de Bordeaux, France
11:00-11:20	WeA02.4
<i>The Transient Impulse Response Modeling Method and the Local Polynomial Method for Nonparametric System Identification</i> , pp. 55-60.	
Gevers, Michel	Univ. catholique de Louvain
Hägg, Per	KTH Royal Inst. of Tech.
Hjalmarsson, Håkan	KTH
Pintelon, Rik	Vrije Univ. Brussel
Schoukens, Johan	Vrije Univ. Brussel
11:20-11:40	WeA02.5
<i>Extension of Local Polynomial Method for Periodic Excitations</i> , pp. 61-65.	
Monteyne, Griet	Vrije Univ. Brussel
Ugrumova, Diana	Vrije Univ. Brussel
Vandersteen, Gerd	Vrije Univ. Brussel
11:40-12:00	WeA02.6
<i>Finite-Frequency Identification of Plant with Time Delay</i> , pp. 66-70.	
Alexandrov, A. G.	Intitute of Control Science, RAS
Palenov, Maxim	Intitute of Control Science, RAS
Orlov, Juriy	Elektrostal Pol. Inst. of Moscow State Inst. St
<b>WeA03</b>	Meeting Studio 211
<b>Convex Optimization 1</b> (Invited Session)	
Chair: Suykens, Johan	K.U. Leuven
Co-Chair: Pelckmans, Kristiaan	Uppsala Univ.
Organizer: Pelckmans, Kristiaan	Uppsala Univ.
Organizer: Suykens, Johan	K.U. Leuven
10:00-10:40	WeA03.1
<i>Convex Optimization Techniques in System Identification (I)</i> , pp. 71-76.	
Vandenberghe, Lieven	Univ. of California at Los Angeles
10:40-11:00	WeA03.2

*Distributed Change Detection (I)*, pp. 77-82.

Ohlsson, Henrik Linköping Univ.  
Chen, Tianshi Linköping Univ. Sweden  
Khoshfetrat Pakazad, Sina Linköping Univ. of Tech.  
Ljung, Lennart Linköping Univ.  
Sastry, Shankar Univ. of California at Berkeley

11:00-11:20 WeA03.3

*An ADMM Algorithm for a Class of Total Variation Regularized Estimation Problems (I)*, pp. 83-88.

Wahlberg, Bo KTH Royal Inst. of Tech.  
Boyd, Stephen P. Stanford Univ.  
Annergren, Mariette KTH Royal Inst. of Tech.  
Wang, Yang Stanford Univ.

11:20-11:40 WeA03.4

*Compressive Phase Retrieval from Squared Output Measurements Via Semidefinite Programming (I)*, pp. 89-94.

Ohlsson, Henrik Linköping Univ.  
Yang, Allen Y. Univ. of California at Berkeley  
Dong, Roy Univ. of California at Berkeley  
Sastry, Shankar Univ. of California at Berkeley

11:40-12:00 WeA03.5

*Convex Estimation of Cointegrated VAR Models by a Nuclear Norm Penalty (I)*, pp. 95-100.

Signoretto, Marco KU Leuven  
Suykens, J.A.K. Katholieke Univ. Leuven

**WeA04** Meeting Studio 212  
**Gaussian Processes-Bayesian Methods (Regular Session)**

Chair: Ljung, Lennart Linköping Univ.  
Co-Chair: Chiuso, Alessandro Univ. of Padova

10:00-10:20 WeA04.1

*Local Prediction Error Adjusted Gaussian Process for Nonlinear Non-Parametric System Identification*, pp. 101-106.

Bai, Er-Wei Univ. of Iowa

10:20-10:40 WeA04.2

*Sparse Gaussian Processes with Uncertain Inputs for Multi-Step Ahead Prediction*, pp. 107-112.

Gutjahr, Tobias ETAS GmbH  
Ulmer, Holger ETAS GmbH  
Ament, Christoph Tech. Univ. Ilmenau

10:40-11:00 WeA04.3

*Impulse Response Estimation with Binary Measurements: A Regularized FIR Model Approach*, pp. 113-118.

Chen, Tianshi Linköping Univ. Sweden  
Zhao, Yanlong Chinese Acad. of Sciences  
Ljung, Lennart Linköping Univ.

11:00-11:20 WeA04.4

*Efficient Algorithms for Large Scale Linear System Identification Using Stable Spline Estimators*, pp. 119-124.

Carli, Francesca Paola Univ. of Padova  
Chiuso, Alessandro Univ. of Padova  
Pillonetto, Gianluigi Univ. of Padova

11:20-11:40 WeA04.5

*On the Estimation of Hyperparameters for Empirical Bayes Estimators: Maximum Marginal Likelihood vs Minimum MSE*, pp. 125-130.

Aravkin, Aleksandr Univ. of British Columbia  
Burke, James V. Univ. of Washington  
Chiuso, Alessandro Univ. of Padova

Pillonetto, Gianluigi Univ. of Padova

11:40-12:00 WeA04.6

*Hierarchical Bayesian ARX Models for Robust Inference*, pp. 131-136.

Dahlin, Johan Linköping Univ.  
Lindsten, Fredrik Linköping Univ.  
Schön, Thomas Bo Linköping Univ.  
Wills, Adrian George Univ. of Newcastle

**WeA05** Meeting Studio 213  
**Continuous-Time Modeling 1 (Regular Session)**

Chair: Young, Peter Lancaster Univ.  
Co-Chair: Garnier, Hugues Univ. de Lorraine

10:00-10:20 WeA05.1

*Identification of a MIMO Continuous-Time Transfer Function Model with Different Denominators*, pp. 137-142.

Ouvrard, Régis Univ. de Poitiers  
Pointot, Thierry Univ. de Poitiers

10:20-10:40 WeA05.2

*Minimax State Estimation for Linear Stationary Differential-Algebraic Equations*, pp. 143-148.

Zhuk, Sergiy IBM Res.

10:40-11:00 WeA05.3

*Least Squares and Output Error Identification Algorithms for Continuous Time Systems with Unknown Time Delay Operating in Open or Closed Loop*, pp. 149-154.

Baysse, Arnaud Lab. Génie de Production, Ec. Nationale d'Ingénieurs de  
Carrillo, Francisco Ec. Nationale d'Ingénieurs de Tarbes (ENIT)  
Habbadi, Abdallah Lab. Génie de Production, Ec. Nationale d'Ingénieurs de

11:00-11:20 WeA05.4

*Continuous Time Delay Estimation in Laguerre Domain - Revisited*, pp. 155-160.

Hidayat, Egi Uppsala Univ.  
Medvedev, Alexander Uppsala Univ.

11:20-11:40 WeA05.5

*Algebraic Identification of Heavy Rope Parameters*, pp. 161-166.

Gehring, Nicole Saarland Univ.  
Knüppel, Torsten Tech. Univ. Dresden  
Rudolph, Joachim Saarland Univ.  
Woittennek, Frank Tech. Univ. Dresden

11:40-12:00 WeA05.6

*Algebraic Parameter Estimation of a Biased Sinusoidal Waveform Signal from Noisy Data*, pp. 167-172.

Ushirobira, Rosane IMB, Univ. de Bourgogne & Non-A Inria Lille - Nord Europe  
Perruquetti, Wilfrid Ec. Centrale de Lille  
Mboup, Mamadou Univ. de Reims Champagne Ardenne, CReSTIC  
Fliess, Michel Ec. Pol.

**WeA06** Meeting Studio 214/216  
**Multivariable Systems (Regular Session)**

Chair: Ninness, Brett Univ. of Newcastle  
Co-Chair: Guillaume, Patrick Vrije Univ. Brussel

10:00-10:20 WeA06.1

*Identification of Spatially Interconnected Systems Using a Sequentially Semi-Separable Gradient Method*, pp. 173-178.

Wingerden, van, Jan-Willem	Delft Univ. of Tech.
Patricio Torres, Patricio Torres	Delft Univ. of Tech.
10:20-10:40	WeA06.2
<i>A Frequency-Domain Maximum Likelihood Implementation Using the Modal Model Formulation</i> , pp. 179-184.	
El-kafafy, Mahmoud	Vrije Univ. Brussel
Gauillaume, Patrick	Vrije Univ. Brussel
De Troyer, Tim	Erasmushogeschool Brussel
Peeters, Bart	LMS International
10:40-11:00	WeA06.3
<i>Statistical Linearization of Multivariable Systems with a Criterion Based on the Rényi Entropy</i> , pp. 185-190.	
Chernyshov, Kirill	V.A. Trapeznikov Inst. of Control Sciences
11:00-11:20	WeA06.4
<i>A Null-Space-Based Technique for the Estimation of Linear-Time Invariant Structured State-Space Representations</i> , pp. 191-196.	
Prot, Olivier	Xlim, Univ. de Limoges
Mercère, Guillaume	Poitiers Univ.
Ramos, Jose	Nova Southeastern Univ.
11:20-11:40	WeA06.5
<i>Multidirectional Simultaneous Estimation of Head-Related Transfer Functions by Prediction Error Method</i> , pp. 197-202.	
Tokuzumi, Yurika	Keio Univ.
Ishikawa, Kentaro	Keio Univ.
Maruta, Ichiro	Keio Univ.
Adachi, Shuichi	Keio Univ.
Matsui, Kentaro	NHK Science and Tech. Res. Lab.
Ando, Akio	NHK Science and Tech. Res. Lab.
11:40-12:00	WeA06.6
<i>Estimation of Linear Systems Using a Gibbs Sampler</i> , pp. 203-208.	
Wills, Adrian George	Univ. of Newcastle
Schön, Thomas Bo	Linköping Univ.
Lindsten, Fredrik	Linköping Univ.
Ninness, Brett	Univ. of Newcastle
<b>WeA07</b>	Meeting Studio 215
<b>Challenges in System Identification (Regular Session)</b>	
Chair: Bitmead, Robert	Univ. of California San Diego
Co-Chair: Markovsky, Ivan	Univ. of Southampton
10:00-10:20	WeA07.1
<i>Interconnection of Stochastic Systems</i> , pp. 209-214.	
Willems, Jan C.	K.U. Leuven
10:20-10:40	WeA07.2
<i>Pitfalls of the Parametric Approaches Exploiting Cross-Validation for Model Order Selection</i> , pp. 215-220.	
Pillonetto, Gianluigi	Univ. of Padova
De Nicolao, Giuseppe	Univ. di Pavia
10:40-11:00	WeA07.3
<i>Prediction Error Method Identification Is an Eigenvalue Problem</i> , pp. 221-226.	
Batselier, Kim	Katholieke Univ. Leuven
Dreesen, Philippe	Katholieke Univ. Leuven
De Moor, Bart L.R.	Katholieke Univ. Leuven
11:00-11:20	WeA07.4
<i>Non-Asymptotic Confidence Regions for the Least-Squares</i>	

<i>Estimate</i> , pp. 227-232.	
Csáji, Balázs Csanád	Computer and Automation Res. Inst. Hungarian Acad. of
Campi, Marco	Univ. of Brescia
Weyer, Erik	Univ. of Melbourne
11:20-11:40	WeA07.5
<i>System Identification with an Extended Threshold M-Estimator for Pseudo-Linear Models Structure</i> , pp. 233-238.	
Corbier, Christophe	Arts et Métiers Paris Tech.
Carmona, Jean-Claude	Arts et Métiers Paris Tech.
Alvarado Martinez, Victor Manuel	CENIDET
11:40-12:00	WeA07.6
<i>Estimation of Higher Moments of a Transfer Function Using Input and Output Data</i> , pp. 239-244.	
Soltanzadeh, Ali	BBA Inc
Dumont, Guy	Univ. of British Columbia

<b>WeP2PI</b>	Copper Hall
<b>Plenary Session 2 - Campi M.C., Certified System Identification - towards Distribution-Free Results (Plenary Session)</b>	
Chair: Soderstrom, Torsten	Uppsala Univ.
13:15-14:15	WeP2PI.1
<i>Certified System Identification - towards Distribution-Free Results</i> , pp. 245-255.	
Campi, Marco	Univ. of Brescia
Csáji, Balázs Csanád	Computer and Automation Res. Inst. Hungarian Acad. of
Garatti, Simone	Pol. di Milano
Weyer, Erik	Univ. of Melbourne

<b>WeB01</b>	Copper Hall
<b>Block Oriented Nonlinear Identification 2 (Invited Session)</b>	
Chair: Rolain, Yves	Vrije Univ. Brussel
Co-Chair: Giri, Fouad	GREYC UMR CNRS - Univ. de Caen
Organizer: Giri, Fouad	GREYC UMR CNRS - Univ. de Caen
Organizer: Bai, Er-Wei	Univ. of Iowa
14:20-14:40	WeB01.1
<i>Bounded-Error Identification of Linear Systems with Input and Output Backlash (I)</i> , pp. 256-261.	
Cerone, Vito	Pol. di Torino
Piga, Dario	Delft Univ. of Tech.
Regruto, Diego	Pol. di Torino
14:40-15:00	WeB01.2
<i>Frequency Identification of Wiener Systems with Backlash Operators Using Separable Least Squares Estimators (I)</i> , pp. 262-267.	
Giri, Fouad	GREYC UMR CNRS - Univ. de Caen
Rochdi, Youssef	Univ. of Cadi Ayyad - FST MARRAKECH Morocco
Ikhouane, Faycal	Univ. Pol. de Catalunya
Brouri, Adil	EMI
Chaoui, Fatima-Zahra	ENSET
15:00-15:20	WeB01.3
<i>Identification of an Extended Hammerstein System with Input Hysteresis Nonlinearity for Control Valve Stiction Characterization (I)</i> , pp. 268-273.	

Wang, Jiandong	Peking Univ.
Zhang, Qinghua	INRIA

15:20-15:40 WeB01.4

*Identification of Hammerstein-Wiener Systems (I)*, pp. 274-279.

Schoukens, Maarten	Vrije Univ. Brussel
Bai, Er-Wei	Univ. of Iowa
Rolain, Yves	Vrije Univ. Brussel

15:40-16:00 WeB01.5

*New Connections between Frequency Response Functions for a Class of Nonlinear Systems (I)*, pp. 280-285.

Rijlaarsdam, David Jan	Eindhoven Univ. of Tech.
Oomen, Tom	Eindhoven Univ. of Tech.
Nuij, Pieter Waltherus Jozef Maria	Eindhoven Univ. of Tech.
Schoukens, Johan	Vrije Univ. Brussel
Steinbuch, Maarten	Eindhoven Univ. of Tech.

**WeB02** Meeting Studio 201 A/B  
**Maximum Likelihood Estimation (Regular Session)**

Chair: Vanbeylen, Laurent	Vrije Univ. Brussel
Co-Chair: Gevers, Michel	Univ. catholique de Louvain

14:20-14:40 WeB02.1

*Asymptotically Efficient Estimation of a Nonlinear Model of the Heteroscedasticity*, pp. 286-291.

Nikiforov, Igor V.	Univ. de Tech. de Troyes
--------------------	--------------------------

14:40-15:00 WeB02.2

*A System Identification Approach to Modeling of Wave Propagation in Pavements*, pp. 292-297.

Hostettler, Roland	Luleå Univ. of Tech.
Lundberg, Magnus	Lulea Univ. of Tech.
Birk, Wolfgang	Luleå Univ. of Tech.

15:00-15:20 WeB02.3

*Regularised Estimators for ARFIMA Processes*, pp. 298-303.

Vivero, Oskar	Univ. of Manchester
Heath, William Paul	Univ. of Manchester

15:20-15:40 WeB02.4

*On Identification of Linear Systems with Quantized and Intermittent Information*, pp. 304-309.

Marelli, Damián Edgardo	Univ. of Newcastle
Fu, Minyue	Univ. of Newcastle

15:40-16:00 WeB02.5

*Vector-Dependent Functionally Pooled ARX Models for the Identification of Systems under Multiple Operating Conditions*, pp. 310-315.

Kopsaftopoulos, Fotis	Univ. of Patras
Fassois, Spiliotis D.	Univ. of Patras

**WeB03** Meeting Studio 211  
**Convex Optimization 2 (Invited Session)**

Chair: Pelckmans, Kristiaan	Uppsala Univ.
Co-Chair: Suykens, Johan	K.U. Leuven
Organizer: Pelckmans, Kristiaan	Uppsala Univ.
Organizer: Suykens, Johan	K.U. Leuven

14:20-14:40 WeB03.1

*How Effective Is the Nuclear Norm Heuristic in Solving Data Approximation Problems? (I)*, pp. 316-321.

Markovsky, Ivan	Univ. of Southampton
-----------------	----------------------

14:40-15:00 WeB03.2

*Identification of Box-Jenkins Models Using Structured ARX Models and Nuclear Norm Relaxation (I)*, pp. 322-327.

Hjalmarsson, Håkan	KTH
Rojas, Cristian	ACCESS Linnaeus Center, KTH
Welsh, James	Univ. of Newcastle

15:00-15:20 WeB03.3

*Stable Nonlinear System Identification: Convexity, Model Class, and Consistency (I)*, pp. 328-333.

Manchester, Ian	Massachusetts Inst. of Tech.
Tobenkin, Mark M.	Massachusetts Inst. of Tech.
Megretski, Alexandre	Massachusetts Inst. of Tech.

15:20-15:40 WeB03.4

*Primal-Dual Instrumental Variable Estimators (I)*, pp. 334-337.

Pelckmans, Kristiaan	Uppsala Univ.
----------------------	---------------

15:40-16:00 WeB03.5

*Identification of Black-Box Wave Propagation Models Using Large-Scale Convex Optimization (I)*, pp. 338-343.

van Waterschoot, Toon	Katholieke Univ. Leuven
Diehl, Moritz	K.U. Leuven
Moonen, Marc	Katholieke Univ. Leuven
Leus, Geert	Delft Univ. of Tech.

**WeB04** Meeting Studio 212  
**Piecewise Affine Models and Quantized Information 1 (Invited Session)**

Chair: Paoletti, Simone	Univ. di Siena
Co-Chair: Garulli, Andrea	Univ. di Siena
Organizer: Casini, Marco	Univ. di Siena
Organizer: Garulli, Andrea	Univ. di Siena
Organizer: Paoletti, Simone	Univ. di Siena
Organizer: Vicino, Antonio	Univ. di Siena

14:20-15:00 WeB04.1

*A Survey on Switched and Piecewise Affine System Identification (I)*, pp. 344-355.

Garulli, Andrea	Univ. di Siena
Paoletti, Simone	Univ. di Siena
Vicino, Antonio	Univ. di Siena

15:00-15:20 WeB04.2

*Recovering Piecewise Affine Maps by Sparse Optimization (I)*, pp. 356-361.

Bako, Laurent	Ec. des Mines de Douai
Boukharouba, Khaled	Ec. des Mines de Douai
Lecoeuche, Stéphane	Mines de Douai

15:20-15:40 WeB04.3

*A Practical Approach to Input Design for Modal Analysis Using Subspace Methods (I)*, pp. 362-367.

Olofsson, Erik	KTH
Rojas, Cristian	ACCESS Linnaeus Center, KTH

15:40-16:00 WeB04.4

*Identification of PWA Models Via Optimal Data Compression (I)*, pp. 368-373.

Maruta, Ichiro	Keio Univ.
Sugie, Toshiharu	Kyoto Univ.

**WeB05** Meeting Studio 213  
**Monitoring and Fault Detection 1 (Invited Session)**

Chair: Basseville, Michele	IRISA/CNRS
Co-Chair: Kinnaert, Michel	Univ. Libre de Bruxelles
Organizer: Basseville,	IRISA/CNRS

Michele		
Organizer: Kinnaert, Michel		Univ. Libre de Bruxelles
14:20-14:40		WeB05.1
<i>Monitoring of a Wind Turbine Rotor Using a Multi-Blade Coordinate Framework (I)</i> , pp. 374-379.		
Henriksen, Lars Christian		Tech. Univ. of Denmark
Niemann, Henrik		Tech. Univ. of Denmark
Poulsen, Niels Kjølstad		Tech. Univ. of Denmark
14:40-15:00		WeB05.2
<i>Subspace Instability Monitoring for Linear Periodically Time-Varying Systems (I)</i> , pp. 380-385.		
Jhinaoui, Ahmed		INRIA
Mevel, Laurent		INRIA
Morlier, Joseph		Univ. de Toulouse, Inst. Clément Ader, ISAE DMSM
15:00-15:20		WeB05.3
<i>Detection and Estimation of Multiple Fault Profiles Using Generalized Likelihood Ratio Tests: A Case Study (I)</i> , pp. 386-391.		
Carl, Joshua David		Vanderbilt Univ.
Tantawy, Ashraf		Vanderbilt Univ.
Biswas, Gautam		Vanderbilt Univ.
Koutsoukos, Xenofon		Vanderbilt Univ.
15:20-15:40		WeB05.4
<i>Sequential Monitoring of Water Distribution Network (I)</i> , pp. 392-397.		
Guepie, Blaise Kevin		Univ. de Tech. de Troyes
Fillatre, Lionel		Univ. de Tech. de Troyes
Nikiforov, Igor V.		Univ. de Tech. de Troyes
15:40-16:00		WeB05.5
<i>Robust Automatic Tuning of Diagnosis Methods Via an Efficient Use of Costly Simulations (I)</i> , pp. 398-403.		
Marzat, Julien		ONERA
Walter, Eric		CNRS
Damongeot, Frederic		ONERA
Piet-Lahanier, Helene		ONERA
<b>WeB06</b> Meeting Studio 214/216		
<b>Distributed Systems (Regular Session)</b>		
Chair: Verhaegen, Michel		Delft Univ. of Tech.
Co-Chair: Keesman, Karel		Wageningen Univ.
14:20-14:40		WeB06.1
<i>Heating Sources Localization Based on Inverse Heat Conduction Problem Resolution</i> , pp. 404-409.		
Beddiaf, Sara		Univ. of Angers
Autrique, Laurent		Univ. of Angers
Perez, Laetitia		Lab. de Thermocinétique de Nantes UMR CNRS 6607
Jolly, Jean-Claude		LISA - Univ. of Angers
14:40-15:00		WeB06.2
<i>Identification of Spatially Distributed Discrete-Time State-Space Models</i> , pp. 410-415.		
Haber, Aleksandar		Delft Univ. of Tech.
Verhaegen, Michel		Delft Univ. of Tech.
15:00-15:20		WeB06.3
<i>Identification of Beam Boundary Conditions Using Displacement Derivatives Estimations</i> , pp. 416-421.		
Chesne, Simon		Lyon Univ. CNRS INSA-Lyon, LaMCoS
15:20-15:40		WeB06.4

<i>Parametric Identification of Elastic Modulus of Polymeric Material in Laminated Glasses</i> , pp. 422-427.		
Zhang, Erliang		Univ. de Tech. de Compiègne
Chazot, Jean-daniel		Univ. de Tech. de Compiègne
Antoni, Jérôme		INSA de Lyon
15:40-16:00		WeB06.5
<i>Entropy and Information in a Fractional Order Model of Anomalous Diffusion</i> , pp. 428-433.		
Magin, Richard		Univ. of Illinois at Chicago
Ingo, Carson		Univ. of Illinois at Chicago
<b>WeB07</b> Meeting Studio 215		
<b>Interval Analysis 1 (Invited Session)</b>		
Chair: Kieffer, Michel		CNRS - Supélec - Univ. Paris-Sud, Inst.
Co-Chair: Fedele, Francesco		Georgia Inst. of Tech.
Organizer: Kieffer, Michel		CNRS - Supélec - Univ. Paris-Sud, Inst.
14:20-14:40		WeB07.1
<i>Set-Membership Identifiability and Guaranteed Parameter Estimation for Nonlinear Uncertain Dynamical Systems (I)</i> , pp. 434-439.		
Jauberthie, Carine		LAAS-CNRS
Verdière, Nathalie		Univ. du Havre
Travé-Massuyès, Louise		CNRS
14:40-15:00		WeB07.2
<i>Set-Membership Estimation of Hybrid Systems Via SAT Mod ODE (I)</i> , pp. 440-445.		
Eggers, Andreas		Carl von Ossietzky Univ. Oldenburg
Ramdani, Nacim		Univ. d'Orléans
Nedialkov, Nedialko		Mcmaster Univ.
Fränzle, Martin		Carl von Ossietzky Univ. Oldenburg
15:00-15:20		WeB07.3
<i>Interval Methods for Control-Oriented Modeling of the Thermal Behavior of High-Temperature Fuel Cell Stacks (I)</i> , pp. 446-451.		
Rauh, Andreas		Univ. of Rostock
Dötschel, Thomas		Univ. of Rostock, Chair of Mechatronics
Auer, Ekaterina		Univ. of Duisburg-Essen, Faculty of Engineering, INKO
Aschemann, Harald		Univ. of Rostock
15:20-15:40		WeB07.4
<i>Verified Online State and Parameter Estimation for a Nonlinear Tank System (I)</i> , pp. 452-457.		
Anritter, Felix		Univ. der Bundeswehr München
Kletting, Marco		CASSIDIAN Electronics
15:40-16:00		WeB07.5
<i>Interval Analysis Applied to Dielectric Spectroscopy: A Guaranteed Parameter Estimation (I)</i> , pp. 458-463.		
Aufroy, Maëlenn		Univ. of Saarland
Brochier, Adrien		Chair Adhesion and Interphases in Pol. Univ. of Saarla
Possart, Wulff		Chair Adhesion and Interphases in Pol. Univ. of Saarla
<b>WeC01</b> Copper Hall		
<b>Block Oriented Nonlinear Identification 3 (Invited Session)</b>		
Chair: Giri, Fouad		GREYC UMR CNRS - Univ. de Caen



Co-Chair: Bai, Er-Wei Univ. of Iowa  
 Organizer: Giri, Fouad GREYC UMR CNRS - Univ. de Caen  
 Organizer: Bai, Er-Wei Univ. of Iowa

Särkkä, Simo Aalto Univ.  
 Bunch, Pete Univ. of Cambridge  
 Godsill, Simon Univ. of Cambridge

16:30-16:50 WeC01.1

*Mixed Parametric-Nonparametric Identification of Hammerstein and Wiener Systems - a Survey (I)*, pp. 464-469.

Hasiewicz, Zygmunt Wrocław Univ. of Tech.  
 Mzyk, Grzegorz Wrocław Univ. of Tech.  
 Sliwinski, Przemyslaw Wrocław Univ. of Tech.  
 Wachel, Pawel Wrocław Univ. of Tech. Pol.

16:50-17:10 WeC01.2

*Classification of the Poles and Zeros of the Best Linear Approximations of Wiener-Hammerstein Systems (I)*, pp. 470-475.

Westwick, David Univ. of Calgary  
 Schoukens, Johan Vrije Univ. Brussel

17:10-17:30 WeC01.3

*Inverse Regression for the Wiener Class of Systems (I)*, pp. 476-481.

Lyzell, Christian Linköping Univ.  
 Enqvist, Martin Linköping Univ.

17:30-17:50 WeC01.4

*On the Convergence Analysis of the MINLIP Estimator (I)*, pp. 482-487.

Pelckmans, Kristiaan Uppsala Univ.  
 Dai, Liang Uppsala Univ. Uppsala, Sweden  
 Bai, Er-Wei Univ. of Iowa

**WeC02** Meeting Studio 201 A/B  
**Sequential Monte Carlo Methods 1** (Invited Session)

Chair: Schön, Thomas Bo Linköping Univ.  
 Co-Chair: Ninness, Brett Univ. of Newcastle  
 Organizer: Schön, Thomas Bo Linköping Univ.  
 Organizer: Wills, Adrian Univ. of Newcastle  
 George  
 Organizer: Gopaluni, Bhushan Univ. of British Columbia

16:30-16:50 WeC02.1

*Exact Approximation of Rao-Blackwellized Particle Filters (I)*, pp. 488-493.

Johansen, Adam M. Univ. of Warwick  
 Whiteley, Nick Univ. of Bristol  
 Doucet, Arnaud Univ. of Oxford

16:50-17:10 WeC02.2

*An Online Expectation-Maximisation Algorithm for Nonnegative Matrix Factorisation Models (I)*, pp. 494-499.

Yildirim, Sinan Univ. OF CAMBRIDGE  
 Cemgil, A. Taylan Bogazici Univ.  
 Singh, Sumeetpal S. Univ. of Cambridge

17:10-17:30 WeC02.3

*One-Line Parameter Estimation in General State-Space Models Using a Pseudo-Likelihood Approach (I)*, pp. 500-505.

Andrieu, Christophe Univ. of Bristol  
 Doucet, Arnaud Univ. of Oxford  
 Tadic, Vladislav Univ. of Bristol

17:30-17:50 WeC02.4

*A Backward-Simulation Based Rao-Blackwellized Particle Smoother for Conditionally Linear Gaussian Models (I)*, pp. 506-511.

**WeC03** Meeting Studio 211  
**Industrial Applications** (Invited Session)

Chair: Anthonis, Jan LMS International  
 Co-Chair: Steinbuch, Maarten Eindhoven Univ. of Tech.  
 Organizer: Van der Auweraer, Herman LMS International

16:30-16:50 WeC03.1

*Application of Multisine Excitation to Aircraft Ground Vibration Testing (I)*, pp. 512-517.

Peeters, Bart LMS International  
 Van der Auweraer, Herman LMS International

16:50-17:10 WeC03.2

*An Iterative Algorithm for Modal Analysis Based on Structured Matrix Fractions (I)*, pp. 518-523.

Vayssettes, Jérémy ONERA  
 Vacher, Pierre ONERA  
 Mercère, Guillaume Poitiers Univ.

17:10-17:30 WeC03.3

*Model Based Control of a Multi-Axis Hydraulic Shaker Using Experimental Modal Analysis (I)*, pp. 524-528.

De Bruyne, Stijn LMS International  
 Van der Auweraer, Herman LMS International  
 Peeters, Bart LMS International  
 Anthonis, Jan LMS International  
 Appolloni, Matteo ESA-ESTEC  
 Cozzani, Alessandro ESA-ESTEC

17:30-17:50 WeC03.4

*INCA MPC4Distillation: A Novel Industrial Solution for Cost-Efficient Non-Linear Distillation Column Modeling and Control (I)*, pp. 529-534.

Pluymers, Bert IPCOS  
 Vandecraen, Bjorn IPCOS NV

**WeC04** Meeting Studio 212  
**Piecewise Affine Models and Quantized Information 2** (Invited Session)

Chair: Garulli, Andrea Univ. di Siena  
 Co-Chair: Vicino, Antonio Univ. di Siena  
 Organizer: Casini, Marco Univ. di Siena  
 Organizer: Garulli, Andrea Univ. di Siena  
 Organizer: Paoletti, Simone Univ. di Siena  
 Organizer: Vicino, Antonio Univ. di Siena

16:30-16:50 WeC04.1

*Continuous Piecewise Linear Identification with Moderate Number of Subregions (I)*, pp. 535-540.

Huang, Xiaolin Tsinghua Univ.  
 Mu, Xiaomu Tsinghua Univ.  
 Wang, Shuning Tsinghua Univ.

16:50-17:10 WeC04.2

*Minimality and Identifiability of SARX Systems (I)*, pp. 541-546.

Petreczky, Mihaly Ec. des Mines de Douai  
 Bako, Laurent Ec. des Mines de Douai  
 Lecoeuche, Stéphane Mines de Douai

17:10-17:30 WeC04.3

*Joint State and Event Observers for Irregularly Sampled Switching Systems (I)*, pp. 547-552.

Wang, Le Yi Wayne State Univ.  
Feng, Wei Shandong Agricultural Univ.  
Yin, George Wayne State Univ.

17:30-17:50 WeC04.4

*EM-Based Identification of Sparse FIR Systems Having Quantized Data (I)*, pp. 553-558.

Carvajal, Rodrigo Univ. of Newcastle  
Aguero, Juan C The Univ. of Newcastle  
Godoy, Boris I The Univ. of Newcastle  
Goodwin, Graham C. Univ. of Newcastle  
Yuz, Juan I. Univ. Técnica Federico Santa María

**WeC05** Meeting Studio 213  
**Healthcare and Medicine 1** (Invited Session)

Chair: Rivera, Daniel E. Arizona State Univ.  
Co-Chair: Ramos, Jose Nova Southeastern Univ.  
Organizer: Rivera, Daniel E. Arizona State Univ.  
Organizer: Ramos, Jose Nova Southeastern Univ.

16:30-16:50 WeC05.1

*LPV Identification of the Glucose-Insulin Dynamics in Type I Diabetes (I)*, pp. 559-564.

Cerone, Vito Pol. di Torino  
Piga, Dario Delft Univ. of Tech.  
Regruto, Diego Pol. di Torino  
Berehanu, Sintayehu Pol. di Torino

16:50-17:10 WeC05.2

*Parametric Modeling in Estimating Abnormal Intra-QRS Potentials in Signal-Averaged Electrocardiograms: A Subspace Identification Approach (I)*, pp. 565-570.

Ramos, Jose Nova Southeastern Univ.  
Lopes dos Santos, P. Univ. do Porto

17:10-17:30 WeC05.3

*Control of Rocuronium-Induced Neuromuscular Blockade Via Online Identification of a Two-Parameters Wiener Model (I)*, pp. 571-576.

Martins da Silva, Margarida Faculdade de Ciências, Univ. do Porto  
Rabiço, Rui Hospital Pedro Hispano, Unidade Local de Saúde de Matosinhos  
Mendonça, Teresa Faculdade de Ciências da Univ. do Porto  
Wigren, Torbjörn Uppsala Univ.

17:30-17:50 WeC05.4

*Quantifying Additive Uncertainty in an Identified Multivariable Model for Closed Loop Control of Depth of Anesthesia (I)*, pp. 577-582.

Ionescu, Clara Ghent Univ.  
Dutta, Abhishek Ghent Univ.  
De Keyser, Robin M.C. Ghent Univ.

**WeC06** Meeting Studio 214/216  
**Identification for Control 1** (Regular Session)

Chair: Gevers, Michel Univ. catholique de Louvain  
Co-Chair: Hjalmarsson, KTH  
Håkan

16:30-16:50 WeC06.1

*A Frequency-Domain Approach for Flexible-Joint Robot Modeling*

*and Identification*, pp. 583-588.

Makarov, Maria CEA LIST  
Grossard, Mathieu CEA LIST  
Rodriguez-Ayerbe, Pedro Supelec  
Dumur, Didier Ec. Superieure d'Electricite

16:50-17:10 WeC06.2

*Controller Improvement Via Frequency Response Function Estimates*, pp. 589-594.

Cheong, Seunggyun Univ. of California San Diego  
Bitmead, Robert Univ. of California San Diego

17:10-17:30 WeC06.3

*Numerically Reliable Frequency-Domain Estimation of Transfer Functions: A Computationally Efficient Methodology*, pp. 595-600.

van Herpen, Robbert Eindhoven Univ. of Tech.  
Oomen, Tom Eindhoven Univ. of Tech.  
Bosgra, Okko H. Eindhoven Univ. of Tech.

17:30-17:50 WeC06.4

*Selecting Uncertainty Structures in Identification for Robust Control with an Automotive Application*, pp. 601-606.

Oomen, Tom Eindhoven Univ. of Tech.  
Bosgra, Okko H. Eindhoven Univ. of Tech.

**WeC07** Meeting Studio 215  
**Monitoring and Fault Detection 2** (Regular Session)

Chair: Kinnaert, Michel Univ. Libre de Bruxelles  
Co-Chair: Basseville, Michele IRISA/CNRS

16:30-16:50 WeC07.1

*Diagnosis of Inhomogeneous Insulation Degradation in Electric Cables by Distributed Shunt Conductance Estimation*, pp. 607-612.

Zhang, Qinghua INRIA  
Tang, Huaibin Shandong Univ.

16:50-17:10 WeC07.2

*Self-Recovery of Spaceborne Digital Circuits Using Corrective Control*, pp. 613-618.

Kwak, Seong Woo Keimyung Univ.  
Yang, Jung Min Catholic Univ. of Daegu

17:10-17:30 WeC07.3

*A Monitoring Technique Using Multivariate Statistical Process Control Method for Performance Improvement with Application to Wastewater Treatment Plant Operation*, pp. 619-624.

Yamanaka, Osamu TOSHIBA Corp.  
Yoshizawa, Naoto Toshiba Corp.  
Hiraoka, Yukio Toshiba Corp.  
Sano, Katsumi Japan Sewage Works Agency  
Hamada, Tomoyuki Japan Sewage Works Agency

17:30-17:50 WeC07.4

*Statistical Fault Detection and Isolation for Linear Time-Varying Systems*, pp. 625-630.

Zhang, Qinghua INRIA  
Basseville, Michele IRISA/CNRS

Technical Program for Thursday July 12, 2012

<b>ThP3PI</b>	Copper Hall
<b>Plenary Session 3 - Willsky A.S., Learning and Inference for Graphical and Hierarchical Models: A Personal Journey (Plenary Session)</b>	
Chair: Bitmead, Robert	Univ. of California San Diego
08:30-09:30	ThP3PI.1
<i>Learning and Inference for Graphical and Hierarchical Models: A Personal Journey</i> , pp. 631-631.	
Willsky, Alan S.	MIT
<b>ThA01</b>	Copper Hall
<b>Nonlinear Identification 1 (Regular Session)</b>	
Chair: Enqvist, Martin	Linköping Univ.
Co-Chair: Wahlberg, Bo	KTH Royal Inst. of Tech.
10:00-10:20	ThA01.1
<i>Identification of the Silverbox Benchmark Using Nonlinear State-Space Models</i> , pp. 632-637.	
Marconato, Anna	Vrije Univ. Brussel
Sjoberg, Jonas	Chalmers Univ.
Suykens, Johan	K.U. Leuven
Schoukens, Johan	Vrije Univ. Brussel
10:20-10:40	ThA01.2
<i>a Combined SVM/OB-Based Wiener Model Identification Method</i> , pp. 638-643.	
Gomez, Juan Carlos	Univ. Nacional de Rosario
Baeyens, Enrique	Univ. of Valladolid
10:40-11:00	ThA01.3
<i>A Novel Two-Stage Classical Gram-Schmidt Algorithm for Wavelet Network Construction</i> , pp. 644-649.	
Zhang, Long	Queen's Univ. Belfast
Li, Kang	Queen's Univ. Belfast
Bai, Er-Wei	Univ. of Iowa
Wang, Shujuan	Harbin Inst. of Tech.
11:00-11:20	ThA01.4
<i>A New Subspace-Based Approach to Identify Nonlinear Mechanical Structures in the Frequency Domain</i> , pp. 650-655.	
Noël, Jean-Philippe	Univ. of Liège
Kerschen, Gaëtan	Univ. of Liège
11:20-11:40	ThA01.5
<i>Temperature Model of an Industrial Air Handling Unit and Manufacturing Zone</i> , pp. 656-661.	
Zajic, Ivan	Coventry Univ.
Larkowski, Tomasz	Coventry Univ. Faculty of Engineering and Computing
Burnham, Keith J.	Coventry Univ.
Hill, Dean	Abbott Diabetes Care
11:40-12:00	ThA01.6
<i>A Comparison of Identification Methods of a Hydraulic Pumping System</i> , pp. 662-667.	
Mahmoud, MagdiSadek Mostafa	KFUPM
<b>ThA02</b>	Meeting Studio 201 A/B
<b>Experiment Design 1 (Regular Session)</b>	
Chair: Hjalmarsson, Håkan	KTH
Co-Chair: Godfrey, Keith Richard	Univ. of Warwick

10:00-10:20	ThA02.1
<i>Optimal Input Design for Model Discrimination</i> , pp. 668-673.	
Keesman, Karel	Wageningen Univ.
Walter, Eric	CNRS
10:20-10:40	ThA02.2
<i>Combined Identification and Rejection of Periodic Disturbances in the Presence of Plant Uncertainty</i> , pp. 674-679.	
Fedele, Giuseppe	Univ. della Calabria
Ferrise, Andrea	Univ. della Calabria
Bodson, Marc	Univ. of Utah
10:40-11:00	ThA02.3
<i>Robust Experiment Design for System Identification Via Semi-Infinite Programming Techniques</i> , pp. 680-685.	
Katselis, Dimitrios	KTH Royal Inst. of Tech.
Rojas, Cristian	ACCESS Linnaeus Center, KTH
Welsh, James	Univ. of Newcastle
Hjalmarsson, Håkan	KTH
11:00-11:20	ThA02.4
<i>Optimal Perturbations for the Identification of Stochastic Reaction Dynamics</i> , pp. 686-691.	
Nandy, Preetam	ETH Zurich
Unger, Michael	ETH Zurich
Zechner, Christoph	ETH Zurich
Koepl, Heinz	ETH Zurich
11:20-11:40	ThA02.5
<i>Identification and Experiment Design with Joint Time/frequency Data</i> , pp. 692-697.	
Panzani, Giulio	Pol. di Milano
Lovera, Marco	Pol. di Milano
11:40-12:00	ThA02.6
<i>On the Convergence of the Prediction Error Method to Its Global Minimum</i> , pp. 698-703.	
Eckhard, Diego	UFRGS
Bazanella, Alexandre S.	Univ. Federal Do Rio Grande Do Sul
Rojas, Cristian	ACCESS Linnaeus Center, KTH
Hjalmarsson, Håkan	KTH
<b>ThA03</b>	Meeting Studio 211
<b>Model Reduction/Approximation (Invited Session)</b>	
Chair: Olivi, Martine	INRIA
Co-Chair: Peeters, Ralf	Maastricht Univ.
Organizer: Hanzon, Bernard	Univ. Coll. Cork
Organizer: Peeters, Ralf	Maastricht Univ.
Organizer: Olivi, Martine	INRIA
10:00-10:20	ThA03.1
<i>On Algebraic and Linear Algebraic Aspects of Co-Order Three H2 Model Order Reduction (I)</i> , pp. 704-709.	
Peeters, Ralf	Maastricht Univ.
Bleylevens, Ivo	Univ. Maastricht
Hanzon, Bernard	Univ. Coll. Cork
10:20-10:40	ThA03.2
<i>H2 Model Reduction by Means of Groebner Bases and Its Extension to the Parametric Case (I)</i> , pp. 710-715.	
Kanno, Masaaki	Niigata Univ.
10:40-11:00	ThA03.3
<i>Rational Approximation of Transfer Functions for Non-Negative EPT Densities (I)</i> , pp. 716-721.	
Sexton, Conor	Univ. Coll. Cork

Olivi, Martine	INRIA
Hanzon, Bernard	Univ. Coll. Cork
11:00-11:20	ThA03.4
<i>Structured Low-Rank Approximation As a Rational Function Minimization (I)</i> , pp. 722-727.	
Usevich, Konstantin	Univ. of Southampton
Markovsky, Ivan	Univ. of Southampton
11:20-11:40	ThA03.5
<i>On a Finiteness Result for the Number of Critical Points of the H2 Approximation Criterion (I)</i> , pp. 728-733.	
Hanzon, Bernard	Univ. Coll. Cork
Peeters, Ralf	Maastricht Univ.
Bleylevens, Ivo	Univ. Maastricht
11:40-12:00	ThA03.6
<i>Finite Horizon Approximation of Linear Time-Varying Systems (I)</i> , pp. 734-738.	
Melchior, Samuel	Univ. catholique de Louvain
Van Dooren, Paul	Louvain Belgium
Gallivan, Kyle	Florida State Univ.
<b>ThA04</b>	Meeting Studio 212
<b>Mechanical Applications 1 (Regular Session)</b>	
Chair: Guillaume, Patrick	Vrije Univ. Brussel
Co-Chair: Peeters, Bart	LMS International
10:00-10:20	ThA04.1
<i>NOx Virtual Sensor Design Via In-Cylinder Pressure Feature Extraction</i> , pp. 739-744.	
Formentin, Simone	Pol. di Milano
Corno, Matteo	Pol. di Milano
Alberer, Daniel	Johannes Kepler Univ. Linz
Benatzky, Christian	Johannes Kepler Univ. Linz
del Re, Luigi	Johannes Kepler Univ.
Savaresi, Sergio	Pol. di Milano
10:20-10:40	ThA04.2
<i>Reduced Order Models for a LNT-SCR Diesel After-Treatment Architecture with NO/NO2 Differentiation</i> , pp. 745-750.	
Marie-Luce, David	Renault
Bliman, Pierre-Alexandre J	INRIA-Rocquencourt
Di Penta, Damiano	Renault
Sorine, Michel	INRIA
10:40-11:00	ThA04.3
<i>Fuel Consumption Optimization: Early Experiments</i> , pp. 751-756.	
Suzdaleva, Evgenia	Inst. of Information Theory and Automation of the ASCR
Nagy, Ivan	Inst. of information theory and automation
Pavelkova, Lenka	Inst. of Information Theory and Automation, Acad. of Scien
11:00-11:20	ThA04.4
<i>A Decoupling Dynamic Estimator for Online Parameters Identification of Permanent Magnet Three-Phase Synchronous Motors</i> , pp. 757-762.	
Mercorelli, Paolo	Leuphana Univ. Lueneburg
11:20-11:40	ThA04.5
<i>Joint Identification of Stepper Motor Parameters and of Initial Encoder Offset</i> , pp. 763-768.	
Delpoux, Romain	Ec. centrale de Lille
Bodson, Marc	Univ. of Utah
Floquet, Thierry	CNRS
11:40-12:00	ThA04.6

<i>Control-Oriented Modeling of Motorcycle Dynamics</i> , pp. 769-774.	
Corno, Matteo	Pol. di Milano
De Filippi, Pierpaolo	Pol. di Milano
Turri, Valerio	Pol. di Milano
Savaresi, Sergio	Pol. di Milano
Panzani, Giulio	Pol. di Milano

<b>ThA05</b>	Meeting Studio 213
<b>Healthcare and Medicine 2 (Invited Session)</b>	
Chair: Ramos, Jose	Nova Southeastern Univ.
Co-Chair: Rivera, Daniel E.	Arizona State Univ.
Organizer: Rivera, Daniel E.	Arizona State Univ.
Organizer: Ramos, Jose	Nova Southeastern Univ.

10:00-10:20	ThA05.1
<i>A Bi-Phase Algorithm to Identify Hypnotic Models of Patients Subject to Deep Sedation for Ultrasonographic Endoscopy (I)</i> , pp. 775-780.	
Lemos, Joao M.	Inesc-id
Gomes, Joao	INESC-ID
Costa, Bertinho	INESC-ID
Gambús, Pedro	Hospital Clinic Barcelona
Jensen, Erik W.	UPC
Mendonça, Teresa	Faculdade de Ciências da Univ. do Porto

10:20-10:40	ThA05.2
<i>Comparing Different Identification Approaches for the Depth of Anesthesia Using BIS Measurements (I)</i> , pp. 781-785.	
Mendonça, Teresa	Faculdade de Ciências da Univ. do Porto
Alonso, Hugo	Faculty of Sciences, Univ. of Oporto
Martins da Silva, Margarida	Faculdade de Ciências, Univ. do Porto
Esteves, Simao	Centro Hospitalar do Porto - Hospital Santo antonio
Seabra, Manuel	ULS de Matosinhos, Hospital Pedro Hispano, Departamento de Anest

10:40-11:00	ThA05.3
<i>System Identification Modeling of a Smoking Cessation Intervention (I)</i> , pp. 786-791.	
Timms, Kevin P.	Arizona State Univ.
Rivera, Daniel E.	Arizona State Univ.
Collins, Linda M	Penn State
Piper, Megan E.	Department of Medicine, Center for Tobacco Res. and Interven

11:00-11:20	ThA05.4
<i>Identification of the Regional Variability of the Brain Hemodynamic Response to Spontaneous and Step-Induced CO2 Changes Using Function Expansions (I)</i> , pp. 792-797.	
Prokopiou, Prokopis	Univ. of Cyprus
Pattinson, Kyle T.S.	Univ. of Oxford
Wise, Richard G.	Cardiff Univ.
Mitsis, Georgios D.	Univ. of Cyprus

11:20-11:40	ThA05.5
<i>Identification of Hammerstein Systems from Short Segments of Data: Application to Stretch Reflex Identification (I)</i> , pp. 798-803.	
Jalaaleddini, Kian	McGill Univ.
Alley, Ferryl	McGill Univ.
Kearney, Robert Edward	McGill Univ.

11:40-12:00	ThA05.6
-------------	---------

*Dynamic Modeling of Clinical Depression and Treatment Responsiveness Identification (I)*, pp. 804-809.

Gonzalez-Olvera, Marcos A. Univ. Autónoma de la Ciudad de México

Gonzalez-Olvera, Jorge J. Inst. Nacional de Psiquiatría "Ramón de la Fuente"

**ThA06** Meeting Studio 214/216  
**Continuous-Time Modeling 2 (Invited Session)**

Chair: Agüero, Juan C The Univ. of Newcastle  
Co-Chair: Garnier, Hugues Univ. de Lorraine  
Organizer: Garnier, Hugues Univ. de Lorraine

10:00-10:20 ThA06.1

*What Does Continuous-Time Model Identification Have to Offer? (I)*, pp. 810-815.

Garnier, Hugues Univ. de Lorraine  
Young, Peter Lancaster Univ.

10:20-10:40 ThA06.2

*Continuous-Time Model Identification for Rotorcraft Dynamics (I)*, pp. 816-821.

Sguanci, Maria Pol. diMilano  
Bergamasco, Marco Pol. di Milano  
Lovera, Marco Pol. di Milano

10:40-11:00 ThA06.3

*Practical Experience with Unified Discrete and Continuous-Time, Multi-Input Identification for Control System Design (I)*, pp. 822-827.

Taylor, C. James Lancaster Univ.  
Young, Peter Lancaster Univ.  
Cross, Philip Lancaster Univ.

11:00-11:20 ThA06.4

*A Kalman Pre-Filtered IV-Based Approach to Continuous-Time Hammerstein-Wiener System Identification (I)*, pp. 828-833.

Ni, Boyi Nancy Univ.  
Gilson, Marion Nancy-Univ.  
Zhang, Qinghua INRIA  
Garnier, Hugues Univ. de Lorraine

11:20-11:40 ThA06.5

*Connections between Incremental and Continuous-Time EM Algorithm for State Space Identification (I)*, pp. 834-839.

Yuz, Juan I. Univ. Técnica Federico Santa María  
Agüero, Juan C The Univ. of Newcastle  
Goodwin, Graham C. Univ. of Newcastle  
Alfaro, Jared Univ. Técnica Federico Santa María

11:40-12:00 ThA06.6

*Instrumental Variable Methods for Identifying Partial Differential Equation Models of Distributed Parameter Systems (I)*, pp. 840-845.

Schorsch, Julien Univ. Nancy  
Garnier, Hugues Nancy-Univ.  
Gilson, Marion Nancy-Univ.

**ThA07** Meeting Studio 215  
**Closed Loop Identification (Regular Session)**

Chair: Van den Hof, Paul Eindhoven Univ. of Tech. M.J.  
Co-Chair: Bombois, Xavier Delft Univ. of Tech.

10:00-10:20 ThA07.1

*New Closed-Loop Identification Approach Based on Output Over-Sampling Scheme*, pp. 846-851.

Sun, Lianming The Univ. of Kitakyushu  
Zhu, Yucai Zhejiang Univ.

10:20-10:40 ThA07.2

*New Closed-Loop Output Error Method for Robot Joint Stiffness Identification*, pp. 852-857.

Gautier, Maxime Univ. of Nantes/IRCCyN  
Janot, Alexandre ONERA  
Jubien, Anthony IRCCyN/ONERA  
Vandanjon, Pierre-Olivier LUNAM Univ. Ifsttar,

10:40-11:00 ThA07.3

*Asymptotic Properties of BCSS Method in Closed Loop Environment*, pp. 858-863.

Ikeda, Kenji The Univ. of Tokushima  
Oku, Hiroshi Osaka Inst. of Tech.

11:00-11:20 ThA07.4

*New Method of Closed-Loop Identification of FOPDT and SOPDT Models Considering the Padé Zero Influence*, pp. 864-869.

de Barros Fontes, Adhemar Federal Univ. of Bahia  
Sobrinho, Manoel de Oliveira Univ. Federal do vale do São Francisco  
Lima, Joselito Federal Univ. of Bahia

11:20-11:40 ThA07.5

*Closed Loop Output Error Identification with Bounded Disturbances*, pp. 870-875.

Pouliquen, Mathieu Univ. de Caen  
Gehan, Olivier ENSICAEN  
Pigeon, Eric Univ. of Caen  
Frikel, Miloud Groupe de Recherches en Informatique, Image, Automatique et Inst.

11:40-12:00 ThA07.6

*Dynamic Network Structure Identification with Prediction Error Methods - Basic Examples*, pp. 876-881.

Dankers, Arne Tech. Univ. Delft  
Van den Hof, Paul M.J. Eindhoven Univ. of Tech.  
Heuberger, Peter Delft Univ. of Tech.  
Bombois, Xavier Delft Univ. of Tech.

**ThP4PI** Copper Hall

**Plenary Session 4 - Rivera D.E., Optimized Behavioral Interventions: What Does System Identification and Control Engineering Have to Offer? (Plenary Session)**

Chair: Van den Hof, Paul Eindhoven Univ. of Tech. M.J.

13:15-14:15 ThP4PI.1

*Optimized Behavioral Interventions: What Does System Identification and Control Engineering Have to Offer?*, pp. 882-8JH

Rivera, Daniel E. Arizona State Univ.

**ThB01** Copper Hall  
**Optimization, Filtering, and Smoothing (Regular Session)**

Chair: Katayama, Tohru Ritsumeikan Univ.  
Co-Chair: Niedzwiecki, Gdansk Univ. of Tech.  
Maciej Jan

14:20-14:40 ThB01.1

*A Statistical and Computational Theory for Robust and Sparse Kalman Smoothing*, pp. 8J1 -8JJ.

Aravkin, Aleksandr Univ. of British Columbia

Burke, James V.	Univ. of Washington
Pillonetto, Gianluigi	Univ. of Padova
14:40-15:00	ThB01.2
<i>Joint Maximum a Posteriori Smoother for State and Parameter Estimation in Nonlinear Dynamical Systems</i> , pp. J€€-J€€ .	
Dutra, Dimas Abreu	Univ. Federal de Minas Gerais
Teixeira, Bruno O. S.	Univ. Federal de Minas Gerais (UFMG)
Aguirre, Luis	Univ. Federeal de Minas Gerais
15:00-15:20	ThB01.3
<i>Unscented Kalman Filter with Controlled Adaptation</i> , pp. J€Ī -9FF.	
Straka, Ondrej	Univ. of West Bohemia
Dunik, Jindrich	Univ. of West Bohemia
Simandl, Miroslav	Univ. of West Bohemia
15:20-15:40	ThB01.4
<i>Locally-Adaptive Kalman Smoothing Approach to Identification of Nonstationary Stochastic Systems</i> , pp. 91G-9FĪ .	
Niedzwiecki, Maciej Jan	Gdansk Univ. of Tech.
Gackowski, Szymon	Gdansk Univ. of Tech. Faculty of Electronics, Telecommu n
15:40-16:00	ThB01.5
<i>UKF-Based Data-Driven Soft Sensing: A Case Study of a Gas-Lifted Oil Well</i> , pp. 9FI -9GH	
Teixeira, Bruno O. S.	Univ. Federal de Minas Gerais (UFMG)
Teixeira, Alex	Petroleo Brasileiro S.A. (Petrobras)
Aguirre, Luis	Univ. Federeal de Minas Gerais
Gomes, Lucas P.	Univ. Federal de Lavras
Barbosa, Bruno Henrique Groenner	Univ. Federal de Minas Gerais
16:00-16:20	ThB01.6
<i>On the Continuous-Discrete Nonlinear Filters by Using Divided Difference Approximations</i> , pp. 9G -9GJ.	
Takeno, Michiaki	Doshisha Univ.
Katayama, Tohru	Ritsumeikan Univ.
<b>ThB02</b>	Meeting Studio 201 A/B
<b>Polynomial and Rational Systems (Invited Session)</b>	
Chair: van Schuppen, Jan H.	CWI
Co-Chair: Glad, Torkel	Linkoping Univ.
Organizer: Petreczky, Mihaly	Ec. des Mines de Douai
Organizer: van Schuppen, Jan H.	CWI
14:20-14:40	ThB02.1
<i>Robustness-Based Model Validation of an Apoptosis Signalling Network Model (I)</i> , pp. 9H€-9HĪ .	
Schliemann, Monica	Univ. de Liège
Findeisen, Rolf	Otto-von-Guericke-Univ. Magdeburg
Bullinger, Eric	Univ. of Liege
14:40-15:00	ThB02.2
<i>Dealing with Inequalities in Polynomial Models (I)</i> , pp. 9HĪ -9I € .	
Glad, Torkel	Linkoping Univ.
15:00-15:20	ThB02.3
<i>An Efficient Method for Structural Identifiability Analysis of Large Dynamic Systems (I)</i> , pp. 9I F-9I Ī .	
Karlsson, Johan	Fraunhofer-Chalmers Res. Centre for Industrial Mathematics

Angelova, Milena	Fraunhofer-Chalmers Centre
Jirstrand, Mats	Fraunhofer-Chalmers Res. Centre for Industrial Mathematics
15:20-15:40	ThB02.4
<i>Evaluating the Trade-Offs in Optimal Experiment Design Using a Multi-Objective Optimisation Approach (I)</i> , pp. 9Ī Ī -9Ī G	
Telen, Dries	Katholieke Univ. Leuven
Logist, Filip	Katholieke Univ. Leuven
Van Derlinden, Eva	KULeuven
Van Impe, Jan F.M.	Katholieke Univ. Leuven
15:40-16:00	ThB02.5
<i>System Reduction and Identification of Polynomial and of Rational Systems (I)</i> , pp. 9Ī H-9Ī ĩ .	
Nemcova, Jana	Inst. of Chemical Tech. Prague
Petreczky, Mihaly	Ec. des Mines de Douai
van Schuppen, Jan H.	CWI

<b>ThB03</b>	Meeting Studio 211
<b>Sparse Methods (Invited Session)</b>	
Chair: Pillonetto, Gianluigi	Univ. of Padova
Co-Chair: Chiuso, Alessandro	Univ. of Padova
Organizer: Chiuso, Alessandro	Univ. of Padova
Organizer: Pillonetto, Gianluigi	Univ. of Padova

14:20-14:40	ThB03.1
<i>Incorporating Additional Constraints in Sparse Estimation (I)</i> , pp. 9Ī J-9Ī I .	
Baldassarre, Luca	Univ. Coll. London
Morales, Jean Manuel	Univ. Coll. London
Pontil, Massimiliano	UCL

14:40-15:00	ThB03.2
<i>On the MSE Properties of Empirical Bayes Methods for Sparse Estimation (I)</i> , pp. 9Ī ĩ -9Ī € .	
Aravkin, Aleksandr	Univ. of British Columbia
Burke, James V.	Univ. of Washington
Chiuso, Alessandro	Univ. of Padova
Pillonetto, Gianluigi	Univ. of Padova

15:00-15:20	ThB03.3
<i>Is There Sparsity Beyond Additive Models? (I)</i> , pp. 9Ī F-9Ī 6.	
Mosci, Sofia	DISI, Univ. of Genova
Rosasco, Lorenzo	IIT-MIT
Santoro, Matteo	IIT, Genova
Verri, Alessandro	DISI, Univ. of Genova
Villa, Silvia	Univ. of Genova

15:40-16:00	ThB03.5
<i>Sparse Estimation Techniques for Basis Function Selection in Wideband System Identification (I)</i> , pp. 9Ī ĩ -9Ī G	
Welsh, James	Univ. of Newcastle
Rojas, Cristian	ACCESS Linnaeus Center, KTH
Hjalmarsson, Håkan	KTH
Wahlberg, Bo	KTH Royal Inst. of Tech.

15:40-16:00	ThB03.6
<i>Sparse Estimation of Rational Dynamical Models (I)</i> , pp. 9Ī H-9Ī ĩ .	
Tóth, Roland	Delft Univ. of Tech.
Hjalmarsson, Håkan	KTH
Rojas, Cristian	ACCESS Linnaeus Center, KTH

<b>ThB04</b>		Meeting Studio 212
<b>Power Systems</b> (Invited Session)		
Chair: Pierre, John	Univ. of Wyoming	
Co-Chair: Young, Marcus	Univ. of Tennessee	
Organizer: Pierre, John	Univ. of Wyoming	
14:20-15:00		ThB04.1
<i>Overview of System Identification for Power Systems from Measured Responses (I)</i> , pp. 91 J-F€€€.		
Pierre, John	Univ. of Wyoming	
Trudnowski, Dan	Montana Tech. of the Univ. of Montana	
Donnelly, Matt	Montana Tech. of the Univ. of Montana	
Zhou, Ning	Pacific Northwest National Lab.	
Tuffner, Francis	PNNL	
Dosiek, Luke	Univ. of Wyoming	
15:00-15:20		ThB04.2
<i>Applications of Spectral Analysis Techniques for Estimating the Nordic Grid's Low Frequency Electromechanical Oscillations (I)</i> , pp. F€€F-F€€I .		
Vanfretti, Luigi	KTH Royal Inst. of Tech.	
Bengtsson, Sebastian	KTH Royal Inst. of Tech.	
Aarstrand, Vemund Halmø	Statnett SF, R&D	
Gjerde, Jan Ove	Statnett SF, R&D	
15:20-15:40		ThB04.3
<i>Advanced Power System Monitoring, Modelling, and Control Applications Using FNET (I)</i> , pp. F€€I -10FG		
Young, Marcus	Univ. of Tennessee	
Markham, Penn	Univ. of Tennessee	
Liu, Yong	Univ. of Tennessee	
Ye, Yanzhu	Univ. of Tennessee	
Chen, Lang	Univ. of Tennessee	
Yingchen, Zhang	California Independent System Operator (CAISO)	
Liu, Yilu	Univ. of Tennessee	
15:40-16:00		ThB04.4
<i>Multichannel Techniques for the Estimation of Power System Electromechanical Modes (I)</i> , pp. 10F2-10FI .		
Dosiek, Luke	Univ. of Wyoming	
Pierre, John	Univ. of Wyoming	
<b>ThB05</b>		Meeting Studio 213
<b>Water Systems Management</b> (Invited Session)		
Chair: Lovera, Marco	Pol. di Milano	
Co-Chair: Bako, Laurent	Ec. des Mines de Douai	
Organizer: Duviella, Eric	Ec. des Mines de Douai	
Organizer: Bako, Laurent	Ec. des Mines de Douai	
Organizer: Lovera, Marco	Pol. di Milano	
14:20-14:40		ThB05.1
<i>Identification of Properties of Open Water Channels for Controller Design (I)</i> , pp. 10FJ-10G .		
van Overloop, Peter-Jules	Delft Univ. of Tech.	
Bombois, Xavier	Delft Univ. of Tech.	
14:40-15:00		ThB05.2
<i>Considerations for Data-Driven Hydrological Models in Flow Forecasting (I)</i> , pp. 10G -10HF.		
Chua, Lloyd H. C.	Nanyang Tech. University, School of Civil and Environmenta	
15:00-15:20		ThB05.3

*Predictive Black-Box Modeling Approaches for Flow Forecasting of the Liane River (I)*, pp. 10HF-10HI .

Duviella, Eric Ec. des Mines de Douai  
Bako, Laurent Ec. des Mines de Douai

15:20-15:40 ThB05.4

*Identification of a Flow-Routing Model for the Red River Network (I)*, pp. 10HI -10I G

Pianosi, Francesca Pol. di Milano  
Castelletti, Andrea Pol. di Milano  
Lovera, Marco Pol. di Milano

15:40-16:00 ThB05.5

*A Control Systems Approach to Input Estimation with Hydrological Applications (I)*, pp. 10I 3-10I ì .

Young, Peter Lancaster Univ.  
Sumislawska, Malgorzata Control Theory and Applications Centre, Coventry Univ.

**ThB06** Meeting Studio 214/216

**Continuous-Time Modeling 3** (Invited Session)

Chair: Garnier, Hugues Univ. de Lorraine  
Co-Chair: Aguero, Juan C The Univ. of Newcastle  
Organizer: Garnier, Hugues Univ. de Lorraine

14:20-14:40 ThB06.1

*Advanced Chebyshev Expansion for Identification of Smart Structures (I)*, pp. 10I J-10I Í .

Chochol, Catherine Univ. de Lyon, CNRS, INSA-Lyon, LaMCoS UMR5259,F-69621, Fra

Chesne, Simon Lyon Univ. CNRS INSA-Lyon, LaMCoS

Remond, Didier Inst. Nat. des Sciences Appliquées

14:40-15:00 ThB06.2

*Continuous-Time Emulation of Large Distributed Parameter Dispersion Models (I)*, pp. 10I Í -10I €.

Young, Peter Lancaster Univ.

15:00-15:20 ThB06.3

*A Refined Instrumental Variable Method for Hammerstein-Wiener Continuous-Time Model Identification (I)*, pp. 10I F-10I Í .

Ni, Boyi Nancy Univ.  
Garnier, Hugues Nancy-Univ.  
Gilson, Marion Nancy-Univ.

15:20-15:40 ThB06.4

*A Note on Parameter Estimation in Lamperti Transformed Fractional Ornstein-Uhlenbeck Processes (I)*, pp. 10I Í -10I G

Mossberg, Magnus Karlstad Univ.  
Mossberg, Eva Karlstad Univ.

15:40-16:00 ThB06.5

*Ultracapacitor Identification Using Continuous LPV Fractional Modelling (I)*, pp. 10I H-10I ì .

Kanoun, Houcem Univ. of POITIERS  
Gabano, Jean-Denis Univ. de Poitiers  
Pointot, Thierry Univ. de Poitiers

**ThB07** Meeting Studio 215

**Interval Analysis 2** (Invited Session)

Chair: Fedele, Francesco Georgia Inst. of Tech.  
Co-Chair: Kieffer, Michel CNRS - Supélec - Univ. Paris-Sud, Inst.  
Organizer: Kieffer, Michel CNRS - Supélec - Univ. Paris-Sud, Inst.

14:20-14:40	ThB07.1
<i>Interval-Based Inverse Problems with Uncertainties (I)</i> , pp. 10Ī J-10Ī I .	
Fedele, Francesco	Georgia Inst. of Tech.
Muhanna, Rafi	Georgia Institute of Tech.
Xiao, Najjia	Georgia Inst. of Tech.
14:40-15:00	ThB07.2
<i>Interval-Based Fault Detection and Identification Applied to Global Positioning (I)</i> , pp. 10Ī Ī -10JĒ.	
Drevelle, Vincent	Univ. de Tech. de Compiègne
Bonnifait, Philippe Pascal Patrick	Univ. of Tech. of Compiègne
15:00-15:20	ThB07.3
<i>Interval Approach to Robust Bounded-Error Estimation of Corrupted Experimental Data (I)</i> , pp. 10JF-10JĪ .	
Kumkov, Sergey I.	Inst. of Mathematics and Mechanics Ural Branch of RAS
15:20-15:40	ThB07.4
<i>Robust Bounded-Error Tracking in Wireless Sensor Networks (I)</i> , pp. 10JĪ -1FĒG	
Mourad, Farah	Univ. de Tech. de Troyes
Snoussi, Hichem	Univ. de Tech. de Troyes
Kieffer, Michel	CNRS - Supélec - Univ. Paris-Sud, Inst.
Richard, Cédric	Univ. de Nice Sophia-Antipolis
15:40-16:00	ThB07.5
<i>Maximum a Posteriori Consistent Estimation Using Interval Analysis (I)</i> , pp. 1FĒĪ-1FĒĪ .	
Abid, Manel	LTCI - CNRS -Telecom ParisTech
Kieffer, Michel	CNRS - Supélec - Univ. Paris-Sud, Inst.
Pesquet-Popescu, Béatrice	LTCI - CNRS - Telecom ParisTech
<b>ThC01</b>	Copper Hall
<b>Block Oriented Nonlinear Identification 4</b> (Invited Session)	
Chair: Bai, Er-Wei	Univ. of Iowa
Co-Chair: Giri, Fouad	GREYC UMR CNRS - Univ. de Caen
Organizer: Giri, Fouad	GREYC UMR CNRS - Univ. de Caen
Organizer: Bai, Er-Wei	Univ. of Iowa
16:30-16:50	ThC01.1
<i>Identification of a Wiener System Via Semidefinite Programming (I)</i> , pp. 1FĒJ-11FH	
Han, Younghee	Univ. of California at San Diego
de Callafon, Raymond	Univ. of California, San Diego
16:50-17:10	ThC01.2
<i>On the Competitive Performance of Second-Order Algorithms (I)</i> , pp. 11FI -11FJ.	
Pelckmans, Kristiaan	Uppsala Univ.
17:10-17:30	ThC01.3
<i>Reducing the Number of Parameters in a Wiener-Schetzen Model (I)</i> , pp. 11GĒ-11GĪ .	
Tiels, Koen	Vrije Univ. Brussel
Heuberger, Peter	Delft Univ. of Tech.
Schoukens, Johan	Vrije Univ. Brussel
17:30-17:50	ThC01.4
<i>Identification of a Block-Structured Model with Localised Nonlinearity (I)</i> , pp. 11GĪ -11HĒ.	

Van Mulders, Anne	Vrije Univ. Brussel
Vanbeylen, Laurent	Vrije Univ. Brussel
Schoukens, Johan	Vrije Univ. Brussel

<b>ThC02</b>	Meeting Studio 201 A/B
<b>Sequential Monte Carlo Methods 2</b> (Invited Session)	
Chair: Sarkka, Simo	Aalto Univ.
Co-Chair: Schön, Thomas Bo	Linköping Univ.
Organizer: Schön, Thomas Bo	Linköping Univ.
Organizer: Wills, Adrian George	Univ. of Newcastle
Organizer: Gopaluni, Bhusan	Univ. of British Columbia
16:30-16:50	ThC02.1
<i>On the Long-Term Stability of Bootstrap-Type Particle Filters (I)</i> , pp. 11HF-11HĪ .	
Douc, Randal	Inst. Telecom/Telecom SudParis
Moulines, Eric	ENST-Paris
Olsson, Jimmy	Lund Univ.
16:50-17:10	ThC02.2
<i>A Semiparametric Bayesian Approach to Wiener System Identification (I)</i> , pp. 11HĪ -11I G	
Lindsten, Fredrik	Linköping Univ.
Schön, Thomas Bo	Linköping Univ.
Jordan, Michael	Univ. of California, Berkeley
17:10-17:30	ThC02.3
<i>Parallel Implementation of Particle MCMC Methods on a GPU (I)</i> , pp. 11I 3-11I ĩ .	
Henriksen, Soren	The Univ. of Newcastle
Wills, Adrian George	Univ. of Newcastle
Schön, Thomas Bo	Linköping Univ.
Ninness, Brett	Univ. of Newcastle
17:30-17:50	ThC02.4
<i>A Non-Degenerate Rao-Blackwellised Particle Filter for Estimating Static Parameters in Dynamical Models (I)</i> , pp. 11I J-11Ī 4.	
Lindsten, Fredrik	Linköping Univ.
Schön, Thomas Bo	Linköping Univ.
Svensson, Lennart	Chalmers Univ. of Tech.
<b>ThC03</b>	Meeting Studio 211
<b>Subspace Identification</b> (Regular Session)	
Chair: Chiuso, Alessandro	Univ. of Padova
Co-Chair: Verhaegen, Michel	Delft Univ. of Tech.
16:30-16:50	ThC03.1
<i>Identification of Linear Time-Invariant Systems Via Constrained Step-Based Realization</i> , pp. 11Ī Ī -11Ī Ē.	
Miller, Daniel N.	Univ. of California San Diego
de Callafon, Raymond	Univ. of California, San Diego
16:50-17:10	ThC03.2
<i>A Subspace Algorithm for Extracting Periodic Components from Multivariable Signals in Colored Noise</i> , pp. 11Ī F-11Ī Ī .	
Picci, Giorgio	Univ. of Padova
Favaro, Martina	Univ. of Brescia
17:10-17:30	ThC03.3
<i>The Asymptotic Variance of the PBSIDopt Algorithm</i> , pp. 11Ī Ī -11Ī G	
Wingerden, van, Jan-Willem	Delft Univ. of Tech.
17:30-17:50	ThC03.4



*Differentiation Similarities in Fractional Pseudo-State Space Representations and Subspace-Based Methods*, pp. 111 H-111 I .

Malti, Rachid Univ. de Bordeaux  
Thomassin, Magalie Univ. de Lorraine

**ThC04** Meeting Studio 212  
**Piecewise Affine Models and Quantized Information 3** (Invited Session)

Chair: Vicino, Antonio Univ. di Siena  
Co-Chair: Aguero, Juan C The Univ. of Newcastle  
Organizer: Casini, Marco Univ. di Siena  
Organizer: Garulli, Andrea Univ. di Siena  
Organizer: Paoletti, Simone Univ. di Siena  
Organizer: Vicino, Antonio Univ. di Siena

16:30-16:50 ThC04.1

*FIR Approximation of Linear Systems from Quantized Records (I)*, pp. 111 J-111 I .

Cerone, Vito Pol. di Torino  
Piga, Dario Delft Univ. of Tech.  
Regruto, Diego Pol. di Torino

16:50-17:10 ThC04.2

*Recursive Estimation of ARX Systems Using Binary Sensors with Adjustable Thresholds (I)*, pp. 111 I -111 E.

Csáji, Balázs Csanád Computer and Automation Res. Inst. Hungarian Acad. of  
Weyer, Erik Univ. of Melbourne

17:10-17:30 ThC04.3

*Bounding Nonconvex Feasible Sets in Set Membership Identification: OE and ARX Models with Quantized Information (I)*, pp. 111 F-111 J .

Casini, Marco Univ. di Siena  
Garulli, Andrea Univ. di Siena  
Vicino, Antonio Univ. di Siena

17:30-17:50 ThC04.4

*Parameter Identification Near Periodic Orbits of Hybrid Dynamical Systems (I)*, pp. 111 J -111 E.

Burden, Sam UC Berkeley  
Sastry, Shankar Univ. of California at Berkeley  
Ohlsson, Henrik Linköping Univ.

**ThC05** Meeting Studio 213  
**Filtering and Smoothing** (Regular Session)

Chair: Niedzwiecki, Maciej Gdansk Univ. of Tech.  
Jan  
Co-Chair: Katayama, Tohru Ritsumeikan Univ.

16:30-16:50 ThC05.1

*Back to the Roots: Polynomial System Solving, Linear Algebra, Systems Theory*, pp. 108 H-108 I .

Dreesen, Philippe Katholieke Univ. Leuven  
Batselier, Kim Katholieke Univ. Leuven  
De Moor, Bart L.R. Katholieke Univ. Leuven

16:50-17:10 ThC05.2

*Identification Aspects of SDP Based Polynomial Optimization Relaxations*, pp. 108 J-121 F .

Kolumbán, Sándor Budapest Univ. of Tech. and Ec.  
Vajk, Istvan Budapest Univ. of Tech. and Ec.

17:10-17:30 ThC05.3

*Robust and Trend-Following Kalman Smoothers Using Student's T*, pp. 121 F-121 E.

Aravkin, Aleksandr Univ. of British Columbia

Burke, James V. Univ. of Washington

Pillonetto, Gianluigi Univ. of Padova

17:30-17:50 ThC05.4

*On Continuous-Discrete Cubature Kalman Filtering*, pp. 121 F-121 G .

Särkkä, Simo Aalto Univ.  
Solin, Arno Aalto Univ.

**ThC06** Meeting Studio 214/216  
**Identification for Control 2** (Regular Session)

Chair: Hjalmarsson, Håkan KTH  
Co-Chair: Oomen, Tom Eindhoven Univ. of Tech.

16:30-16:50 ThC06.1

*Associative Search and Wavelet Analysis Techniques in System Identification*, pp. 121 G -121 H.

Bakhtadze, Natalia V.A. Trapeznikov Inst. of Control Sciences, Russian Acad.

Lototsky, Vladimir V.A. Trapeznikov Inst. of Control Sciences

Vlasov, Stanislav Russian Acad. of Sciences  
Sakrutina, Ekaterina National Res. Nuclear Univ. «MEPhI»

16:50-17:10 ThC06.2

*State-Dependent System Identification for Control of a Hydraulically-Actuated Nuclear Decommissioning Robot*, pp. 121 H-121 I .

Robertson, David Lancaster Univ.  
Taylor, C. James Lancaster Univ.

17:10-17:30 ThC06.3

*Adaptive Tracking Via Binary-Valued Observations with Fixed Threshold*, pp. 121 J-121 K .

Guo, Jin Chinese Acad. of Sciences  
Zhang, Ji-Feng Chinese Acad. of Sciences  
Zhao, Yanlong Chinese Acad. of Sciences

17:30-17:50 ThC06.4

*Adaptive Observer for Discrete Time State Affine Systems*, pp. 121 K -121 L .

Ticlea, Alexandru Pol. Univ. of Bucharest  
Besancon, Gildas Ense3, Grenoble INP

**ThC07** Meeting Studio 215  
**Parameter Varying Systems 1** (Regular Session)

Chair: Fassois, Spiliotis D. Univ. of Patras  
Co-Chair: Tóth, Roland Delft Univ. of Tech.

16:30-16:50 ThC07.1

*Analytical Modelling and Grey-Box Identification of a Flexible Arm Using a Linear Parameter-Varying Model*, pp. 121 F-121 G .

Mercère, Guillaume Poitiers Univ.  
Laroche, Edouard Strasbourg Univ.  
Prot, Olivier Xlim, Univ. de Limoges

16:50-17:10 ThC07.2

*Active Motorcycle Braking Via Direct Data-Driven Load Transfer Scheduling*, pp. 121 G -121 H .

Panzani, Giulio Pol. di Milano  
Formentin, Simone Pol. di Milano  
Savaresi, Sergio Pol. di Milano

17:10-17:30 ThC07.3

*Grey-Box Modeling of Rotary Type Pendulum System with Position-Variable Load*, pp. 121 H-121 I .

Tan, Xin Kyoto Univ.

Tanaka, Hideyuki

Hiroshima Univ.

Ohta, Yoshito

Kyoto Univ.

---

17:30-17:50

ThC07.4

*Some Study on the Identification of Multi-Model LPV Models with Two Scheduling Variables*, pp. 121 J-121 I .

Huang, JiangYin

Xiamen Univ.

Ji, Guoli

Xiamen Univ.

Zhu, Yucai

Zhejiang Univ.

van den Bosch, P. P. J.

Eindhoven Univ. of Tech.

Technical Program for Friday July 13, 2012

<b>FrP5PI</b>	Copper Hall
<b>Plenary Session 5 - Rasmussen C.E., Machine Learning, Probabilistic Inference, System Identification and Control (Plenary Session)</b>	
Chair: Maciejowski, Jan	Univ. of Cambridge
08:30-09:30	FrP5PI.1
<i>Machine Learning, Probabilistic Inference, System Identification and Control</i>	
Rasmussen, Carl Edward	Univ. of Cambridge
<b>FrA01</b>	Copper Hall
<b>Time Varying Systems (Regular Session)</b>	
Chair: Lataire, John	Vrije Univ. Brussel
Co-Chair: Fassois, Spiliotis D.	Univ. of Patras
10:00-10:20	FrA01.1
<i>Adaptable Functional Series TARMA Models for Non-Stationary Signal Modelling</i> , pp. 1276-1281.	
Spiridonakos, Minas	Univ. of Patras
Fassois, Spiliotis D.	Univ. of Patras
10:20-10:40	FrA01.2
<i>Subspace Identification for Linear Periodically Time-Varying Systems</i> , pp. 1282-1287.	
Jhinaoui, Ahmed	INRIA
Mevel, Laurent	INRIA
Morlier, Joseph	Univ. de Toulouse, Inst. Clément Ader, ISAE DMSM
10:40-11:00	FrA01.3
<i>Identification of Time-Varying Parameters Using the Derivative Formulation of Chebyshev Polynomials</i> , pp. 1288-1293.	
Martel, François	Univ. de Sherbrooke
Chochol, Catherine	Univ. de Lyon, CNRS, INSA-Lyon, LaMCoS UMR5259,F-69621, Fra
Rancourt, Denis	Univ. de Sherbrooke
Chesne, Simon	Lyon Univ. CNRS INSA-Lyon, LaMCoS
Remond, Didier	Inst. Nat. des Sciences Appliquées
11:00-11:20	FrA01.4
<i>Online Bayesian Time-Varying Parameter Estimation of HIV-1 Time-Series</i> , pp. 1294-1299.	
Hartmann, Andras	INESC-ID
Vinga, Susana	INESC-ID
Lemos, Joao M.	Inesc-id
11:20-11:40	FrA01.5
<i>Parameter Estimation for Time Varying Dynamical Systems Using Least Squares Support Vector Machines</i> , pp. 1300-1305.	
Mehrkanon, Siamak	KU Leuven
Falck, Tillmann	Katholieke Univ. Leuven
Suykens, Johan	K.U. Leuven
11:40-12:00	FrA01.6
<i>Time-Varying System Identification for Understanding the Control of Human Knee Impedance</i> , pp. 1306-1310.	
Ludvig, Daniel	Rehabilitation Inst. of Chicago
Pfeifer, Serge	ETH Zurich
Hu, Xiao	Northwestern Univ.
Perreault, Eric J.	Northwestern Univ.

<b>FrA02</b>	Meeting Studio 201 A/B
<b>Experiment Design 2 (Invited Session)</b>	
Chair: Godfrey, Keith Richard	Univ. of Warwick
Co-Chair: Widanage, Widanage Dhammika	Vrije Univ. Brussel
Organizer: Godfrey, Keith Richard	Univ. of Warwick
Organizer: Hjalmarsson, Håkan	KTH
Organizer: Bombois, Xavier	Delft Univ. of Tech.
10:00-10:20	FrA02.1
<i>Towards Patient-Friendly Input Signal Design for Optimized Pain Treatment Interventions (I)</i> , pp. 1311-1316.	
Deshpande, Sunil	Arizona State Univ.
Rivera, Daniel E.	Arizona State Univ.
Younger, Jarred	Stanford Univ. School of Medicine
10:20-10:40	FrA02.2
<i>Constrained Mobile Sensor Routing for Parameter Estimation of Spatiotemporal Processes (I)</i> , pp. 1317-1322.	
Ucinski, Dariusz	Univ. of Zielona Gora
Patan, Maciej	Univ. of Zielona Gora
10:40-11:00	FrA02.3
<i>The Use of Binary Sequences in Determining the Best Linear Approximation of Nonlinear Systems (I)</i> , pp. 1323-1328.	
Wong, Hin Kwan	Univ. of Warwick
Schoukens, Johan	Vrije Univ. Brussel
Godfrey, Keith Richard	Univ. of Warwick
11:00-11:20	FrA02.4
<i>Designing MLBS Excitation for the Frequency-Response Measurement of AC-Connected Power Electronics Systems (I)</i> , pp. 1329-1334.	
Roinila, Tomi	Tampere Univ. of Tech.
Puukko, Joonas	Tampere Univ. of Tech.
Nousiainen, Lari	Tampere Univ. of Tech.
Vilkkö, Matti Kalervo	Tampere Univ. of Tech.
11:20-11:40	FrA02.5
<i>Plant Friendly Input Design for System Identification in Closed Loop (I)</i> , pp. 1335-1340.	
Narasimhan, Sridharakumar	Indian Inst. of Tech. Madras
Bombois, Xavier	Delft Univ. of Tech.
11:40-12:00	FrA02.6
<i>Experiment Design for Closed-Loop Performance Diagnosis (I)</i> , pp. 1341-1346.	
Mesbah, Ali	Delft Univ. of Tech.
Bombois, Xavier	Delft Univ. of Tech.
Ludlage, Jobert	IPCOS B.V.
Van den Hof, Paul M.J.	Eindhoven Univ. of Tech.
<b>FrA03</b>	Meeting Studio 211
<b>Errors-In-Variables Identification (Invited Session)</b>	
Chair: Soderstrom, Torsten	Uppsala Univ.
Co-Chair: Soverini, Umberto	Univ. of Bologna
Organizer: Soderstrom, Torsten	Uppsala Univ.
10:00-10:20	FrA03.1
<i>On Model Order Determination for Errors-In-Variables Estimation (I)</i> , pp. 1347-1352.	
Soderstrom, Torsten	Uppsala Univ.
Wang, Liuping	MIT Univ.

10:20-10:40	FrA03.2
<i>Identification of Errors-In-Variables Models with Mutually Correlated Input and Output Noises (I)</i> , pp. 1353-1358.	
Diversi, Roberto	Univ. of Bologna
Guidorzi, Roberto	Univ. of Bologna
Soverini, Umberto	Univ. of Bologna
10:40-11:00	FrA03.3
<i>An Identification Method for Errors-In-Variables Systems Using Incomplete Data (I)</i> , pp. 1359-1364.	
Carvajal, Rodrigo	Univ. of Newcastle
Delgado, Ramón A.	The Univ. of Newcastle
Aguero, Juan C	The Univ. of Newcastle
Goodwin, Graham C.	Univ. of Newcastle
11:00-11:20	FrA03.4
<i>Errors-In-Variables Identification of Linear Dynamic Systems Using Periodic Excitations (I)</i> , pp. 1365-1370.	
Pintelon, Rik	Vrije Univ. Brussel
Schoukens, Johan	Vrije Univ. Brussel
Vandersteen, Gerd	Vrije Univ. Brussel
11:20-11:40	FrA03.5
<i>On Covariance Matching for Multiple Input Multiple Output Errors-In-Variables Systems (I)</i> , pp. 1371-1376.	
Mossberg, Magnus	Karlstad Univ.
Soderstrom, Torsten	Uppsala Univ.
11:40-12:00	FrA03.6
<i>Unknown Input Reconstruction Observer for Hammerstein-Wiener Systems in the Errors-In-Variables Framework (I)</i> , pp. 1377-1382.	
Sumslawska, Malgorzata	Control Theory and Applications Centre, Coventry Univ.
Larkowski, Tomasz	Coventry Univ. Faculty of Engineering and Computing
Burnham, Keith J.	Coventry Univ.
12:00-12:20	FrA03.7
<i>Accuracy Analysis of a Covariance Matching Method for Continuous-Time Errors-In-Variables System Identification (I)</i> , pp. 1383-1388.	
Soderstrom, Torsten	Uppsala Univ.
Irshad, Yasir	Karlstad Univ. Sweden
Mossberg, Magnus	Karlstad Univ.
Zheng, Wei Xing	Univ. of Western Sydney
<b>FrA04</b>	Meeting Studio 212
<b>Mechanical Applications 2</b> (Regular Session)	
Chair: Oaki, Junji	Toshiba Corp.
Co-Chair: Enqvist, Martin	Linköping Univ.
10:00-10:20	FrA04.1
<i>Global Identification of Robot Drive Gains Parameters Using a Known Payload and Weighted Total Least Square Techniques</i> , pp. 1389-1394.	
Gautier, Maxime	Univ. of Nantes/IRCCyN
Briot, Sebastien	CNRS/IRCCyN
10:20-10:40	FrA04.2
<i>On Identification of Piecewise-Affine Models for Systems with Friction and Its Application to Electro-Mechanical Throttles</i> , pp. 1395-1400.	
Ren, Zhenxing	Univ. of Kassel
Kroll, Andreas	Univ. of Kassel
Sofsky, Manfred	IAV GmbH
Laubenstein, Friedhelm	IAV GmbH
10:40-11:00	FrA04.3

<i>Grey-Box Modeling of Elastic-Joint Robot with Harmonic Drive and Timing Belt</i> , pp. 1401-1411.	
Oaki, Junji	Toshiba Corp.
Adachi, Shuichi	Keio Univ.
11:00-11:20	FrA04.4
<i>In-Flight Estimation of the Aerodynamic Roll Damping and Trim Angle for a Tethered Aircraft Based on Multiple-Shooting</i> , pp. 1411-1414.	
Gros, Sebastien	Post-doc, KU Leuven, Belgium
Ahmad, Hammad	K.U.Leuven
Geebelen, Kurt	KU Leuven
Swevers, Jan	K. U. Leuven
Diehl, Moritz	K.U. Leuven
11:20-11:40	FrA04.5
<i>Sequential Aerodynamic Model Parameter Identification</i> , pp. 1414-1418.	
Larsson, Roger	Linköpings Univ.
Enqvist, Martin	Linköping Univ.
11:40-12:00	FrA04.6
<i>Identification from Flight Data of the Italian Unmanned Space Vehicle</i> , pp. 1418-1423.	
Vitale, Antonio	Italian Aerospace Res. Centre (CIRA)
Corraro, Federico	Italian Aerospace Res. Centre (CIRA)
<b>FrA05</b>	Meeting Studio 213
<b>Biological Applications 1</b> (Regular Session)	
Chair: Westwick, David	Univ. of Calgary
Co-Chair: Allgower, Frank	Univ. of Stuttgart
10:00-10:20	FrA05.1
<i>Relationship between Anatomical Structure, Fractional Order Models and Fractal Dimension in the Respiratory Impedance of Healthy Patients</i> , pp. 1423-1428.	
Ionescu, Clara	Ghent Univ.
Hernandez, Andres	Ghent Univ. Belgium
De Keyser, Robin M.C.	Ghent Univ.
10:20-10:40	FrA05.2
<i>Hybrid Model for Haptic Lung Palpation</i> , pp. 1428-1433.	
Nicotra, Marco M.	Univ. libre de Bruxelles (ULB)
Buttafuoco, Angelo	Univ. libre de Bruxelles (ULB)
Kinnaert, Michel	Univ. Libre de Bruxelles
10:40-11:00	FrA05.3
<i>Mathematical Modelling of Milk Proteins Digestion Dynamics</i> , pp. 1433-1438.	
Barbe, Florence	INRA Rennes & CNRS
Le Feunteun, Steven	INRA Versailles-Grignon
Laroche, Béatrice	INRA
Dupont, Didier	INRA Rennes
11:00-11:20	FrA05.4
<i>A Simple Mass Balance Model for Lettuce - the Water Balance</i> , pp. 1438-1443.	
Maclean, Heather	Univ. catholique de Louvain
Dochain, Denis	Univ. Catholique de Louvain
Waters, Geoffrey	CESRF, Univ. of Guelph
Dixon, Mike	CESRF, Univ. of Guelph
Stasiak, Michael	CESRF, Univ. of Guelph
Van Der Straeten, Dominique	Lab. of Functional Plant Biology, Ghent Univ.
11:20-11:40	FrA05.5

*Identification of a Wastewater Treatment Reactor by Catalytic Ozonation*, pp. 141 I -141 H

Abouzlam, Manhal	Univ. de Poitiers
Ouvrard, Régis	Univ. de Poitiers
Mehdi, Driss	LIAS-ENSIP
Pontlevoy, Florence	Tech.
Gombert, Bertrand	Univ. de Poitiers
Karpel Vel Leitner, Nathalie	Univ. de Poitiers
O.B. Boukari, Sahidou	Univ. de Poitiers

11:40-12:00 FrA05.6

*Modelling of a River System with Multiple Reaches*, pp. 141 I -141 J.

Breckpot, Maarten	Katholieke Univ. Leuven
Agudelo, Oscar Mauricio	Katholieke Univ. Leuven
De Moor, Bart	K.U.Leuven

**FrA06** Meeting Studio 214/216  
**Identification for Control 3 (Regular Session)**

Chair: Oomen, Tom	Eindhoven Univ. of Tech.
Co-Chair: Bazanella, Alexandre S.	Univ. Federal Do Rio Grande Do Sul

10:00-10:20 FrA06.1

*Feedforward and Feedback Adaptive Controls for Continuously Variable Transmissions*, pp. 141 E-141 5.

Gauthier, Jean-Philippe, Gauthier	Bombardier Recreational Products
Micheau, Philippe, Micheau	Univ. de Sherbrooke

10:20-10:40 FrA06.2

*On Input Design for Direct Data-Driven Controller Tuning*, pp. 141 I -141 F.

Formentin, Simone	Pol. di Milano
Karimi, Alireza	Ec. Pol. Federale de Lausanne
Savaresi, Sergio	Pol. di Milano

10:40-11:00 FrA06.3

*Analysis of L1 Adaptive Output Feedback Control; Equivalent LTI Controllers*, pp. 141 G-141 I .

van Heusden, Klaske	Univ. of British Columbia
Dumont, Guy	Univ. of British Columbia

11:00-11:20 FrA06.4

*Model Reference Control Design by Prediction Error Identification*, pp. 141 I -141 H

Campestrini, Luciola	Univ. of Rio Grande do Sul
Eckhard, Diego	UFRGS
Bazanella, Alexandre S.	Univ. Federal Do Rio Grande Do Sul
Gevers, Michel	Univ. catholique de Louvain

11:20-11:40 FrA06.5

*Enhancement in Performance and Stability of MRI Methods*, pp. 141 I -141 J.

Segundo Potts, Alain	Univ. of Sao Paulo
Romano, Rodrigo Alvite	Inst. Mauá de Tecnologia
Garcia, Claudio	Pol. School of The Univ. of Sao Paulo

11:40-12:00 FrA06.6

*Design of Nonlinear MPC by Kriging-Based Optimization*, pp. 14J€-14JÍ .

Marzat, Julien	ONERA
Piet-Lahanier, Helene	ONERA

**FrA07** Meeting Studio 215

**Recursive System Identification (Invited Session)**

Chair: Madsen, Henrik	Tech. Univ. of Denmark
Co-Chair: Young, Peter	Lancaster Univ.

10:00-10:20 FrA07.1

*Convergence Analysis of a Recursive Prediction Error Method*, pp. 14JÍ -1Í €.

Tayamon, Soma	Uppsala Univ.
Wigren, Torbjörn	Uppsala Univ.

10:20-10:40 FrA07.2

*A New Recursive Algorithm for Simultaneous Identification of Discrete Time Delay Systems*, pp. 1Í €G-1Í € .

Bedoui, Saïda	Gabès Univ. National Engineering school of Gabès
Majda, Ltaief	Ec. Nationale d'Ingénieurs de Gabès
Abderrahim, Kamel	Gabès Univ.

10:40-11:00 FrA07.3

*Recursive Subspace Method for Wiener Systems Using Instrumental Variable Techniques*, pp. 1Í € -15FH

Chen, Xi	Acad. of Mathematics and Systems Science, Cas
Fang, Haitao	Acad. ces

11:00-11:20 FrA07.4

*Uniform Asymptotic Convergence of an Adaptive Algorithm with Diminishing Persistent Excitation*, pp. 15FI -15FÍ .

Dasgupta, Soura	Univ. of Iowa
Fidan, Baris	Univ. of Waterloo

11:20-11:40 FrA07.5

*A Recursive Local Linear Estimator for Identification of Nonlinear ARX Systems*, pp. 15FÍ -15GG

Zhao, Wenxiao	Acad. of Mathematics and Systems Science, Chinese Academy of Scie
Zheng, Wei Xing	Univ. of Western Sydney
Bai, Er-Wei	Univ. of Iowa

11:40-12:00 FrA07.6

*Optimality Tests and Adaptive Kalman Filter*, pp. 15GH-15G .

Matisko, Peter	Czech Tech. Univ. in Prague
Havlena, Vladimir	Honeywell Intl.

**FrS1S** Grand Hall  
**Software Session 1 (Software Session)**

Chair: Schumann, Reimar	Uni. App. Sciences & Arts Hannover
Co-Chair: Ljung, Lennart	Linköping Univ.
Organizer: Schumann, Reimar	Univ. of Applied Sciences and Arts

10:00-12:00 FrS1S.1

*ITCRI: An Interactive Software Tool for Evaluating Control-Relevant Identification (I)*, pp. 15GJ-15H .

Álvarez, José Domingo	Univ. of Almería
Guzman, Jose Luis	Univ. of Almería
Rivera, Daniel E.	Arizona State Univ.
Dormido, Sebastián	UNED
Berenguel, Manuel	Univ. of Almería

10:00-12:00 FrS1S.2

*MOOSE: A Model Based Optimal Input Design Toolbox (I)*, pp. 15H -15I €.

Annergren, Mariette	KTH Royal Inst. of Tech.
Larsson, Christian A.	KTH Royal Inst. of Tech.

10:00-12:00	FrS1S.3
<i>A Mathematica Toolbox for Signals, Systems and Identification (I)</i> , pp. 15I F-15I Ĩ .	
Hjalmarsson, Håkan	KTH
Sjoberg, Jonas	Chalmers Univ.

10:00-12:00	FrS1S.4
<i>Artificial Neural Network Based State Estimators Integrated into Kalmtool (I)</i> , pp. 15I Ĩ -15I G	
Bayramoglu, Enis	Tech. Univ. of Denmark
Ravn, Ole	Tech. Univ. of Denmark
Poulsen, Niels Kjølstad	Tech. Univ. of Denmark

10:00-12:00	FrS1S.5
<i>Developments for the CONTSID Toolbox (I)</i> , pp. 15I H-15I ĩ .	
Garnier, Hugues	Univ. de Lorraine
Gilson, Marion	Nancy-Univ.
Laurain, Vincent	Univ. de Lorraine, CNRS
Ni, Boyi	Nancy Univ.

<b>FrP6PI</b>	Copper Hall
<b>Plenary Session 6 - Szaiaer M., Compressive Information Extraction: A Dynamical Systems Approach (Plenary Session)</b>	
Chair: Wahlberg, Bo	KTH Royal Inst. of Tech.
-	FrP6PI.1
<i>Compressive Information Extraction: A Dynamical Systems Approach</i> , pp. 15I J-15I ĩ .	
Szaiaer, Mario	Northeastern Univ.

<b>FrB01</b>	Copper Hall
<b>Nonlinear Identification 2 (Regular Session)</b>	
Chair: Marconato, Anna	Vrije Univ. Brussel
Co-Chair: Rijlaarsdam, David Jan	Eindhoven Univ. of Tech.

14:20-14:40	FrB01.1
<i>POLYMOT versus HILOMOT - a Comparison of Two Different Training Algorithms for Local Model Networks</i> , pp. 15I J-15I ĩ .	
Bänfer, Oliver	Daimler AG
Hartmann, Benjamin	Univ. Siegen
Nelles, Oliver	Univ. of Siegen

14:40-15:00	FrB01.2
<i>Sliced Inverse Regression for the Identification of Dynamical Systems</i> , pp. 15I ĩ -15I € .	
Lyzell, Christian	Linköping Univ.
Enqvist, Martin	Linköping Univ.

15:00-15:20	FrB01.3
<i>Using Surrogate Data for Nonlinear Identification: A Case Study</i> , pp. 15I F-15I Ĩ .	
Waller, Matias	Åland Univ. of Applied Sciences

15:20-15:40	FrB01.4
<i>On the Detection of Nonlinearities in Sampled Data</i> , pp. 15I 7-15I JG	
Escobar, Jesica Azucena	LiU
Enqvist, Martin	Linköping Univ.

15:40-16:00	FrB01.5
<i>Convergence of Learning Algorithms in Neural Networks for Adaptive Identification of Nonlinearly Parameterized Systems</i> , pp. 15I JH-15I J8.	
Zhiteckii, Leonid	Inst. of Cybernetics
Azarskov, Valerii	National Aviation Univ.
Nikolaienko, Sergii	National Aviation Univ.

16:00-16:20	FrB01.6
<i>Enforcing Stability in Steady-State Optimization</i> , pp. 15I JJ-1Ĩ € .	
Beňo, Radek	Czech Tech. Univ. in Prague, Faculty ofElectricalEngine
Pachner, Daniel	Honeywell
Havlena, Vladimir	Honeywell Tech. Center Europe

<b>FrB02</b>	Meeting Studio 201 A/B
<b>Experiment Design 3 (Invited Session)</b>	
Chair: Bombois, Xavier	Delft Univ. of Tech.
Co-Chair: Manchester, Ian	Massachusetts Inst. of Tech.
Organizer: Godfrey, Keith Richard	Univ. of Warwick
Organizer: Hjalmarsson, Håkan	KTH
Organizer: Bombois, Xavier	Delft Univ. of Tech.

14:20-14:40	FrB02.1
<i>Design and Application of Signals for Nonlinear System Identification (I)</i> , pp. 1Ĩ € -1Ĩ F€.	
Widanage, Widanalage Dhammika	Vrije Univ. Brussel
Stoev, Julian	Flanders' MECHATRONICS Tech. Centre
Schoukens, Johan	Vrije Univ. Brussel

14:40-15:00	FrB02.2
<i>Robust Input Design for Resonant Systems under Limited a Priori Information (I)</i> , pp. 16I FF-16I Fĭ .	
Larsson, Christian A.	KTH Royal Inst. of Tech.
Geerardyn, Egon	Vrije Univ. Brussel
Schoukens, Johan	Vrije Univ. Brussel

15:00-15:20	FrB02.3
<i>Amplitude-Constrained Input Design: Convex Relaxation and Application to Clinical Neurology (I)</i> , pp. 16I Fĭ -16I GG	
Manchester, Ian	Massachusetts Inst. of Tech.

15:20-15:40	FrB02.4
<i>A Review of Sufficient Conditions for Structure Identification in Interconnected Systems (I)</i> , pp. 16I Gĭ-16I G .	
Molazem Sanandaji, Borhan	Colorado School of Mines
Vincent, Tyrone	Colorado School of Mines
Wakin, Michael	Colorado School of Mines

15:40-16:00	FrB02.5
<i>Mean-Squared Error Experiment Design for Linear Regression Models (I)</i> , pp. 16I GJ-16I H .	
Eckhard, Diego	UFRGS
Hjalmarsson, Håkan	KTH
Rojas, Cristian	ACCESS Linnaeus Center, KTH
Gevers, Michel	Univ. catholique de Louvain

16:00-16:20	FrB02.6
<i>Application-Oriented Finite Sample Experiment Design: A Semidefinite Relaxation Approach (I)</i> , pp. 16I H -16I € .	
Katselis, Dimitrios	KTH Royal Inst. of Tech.
Rojas, Cristian	ACCESS Linnaeus Center, KTH
Hjalmarsson, Håkan	KTH
Bengtsson, Mats	KTH Royal Inst. of Tech.

<b>FrB03</b>	Meeting Studio 211
<b>Errors-In-Variables and Closed Loop Identification (Regular Session)</b>	
Chair: Soverini, Umberto	Univ. of Bologna
Co-Chair: Diversi, Roberto	Univ. of Bologna

14:20-14:40	FrB03.1
<i>EIV Methods for System Identification with Fractional Models</i> , pp. 16I F-16I Ĩ .	
Chetoui, Manel	ENIG
Malti, Rachid	Univ. de Bordeaux
Thomassin, Magalie	Univ. de Lorrain
Aoun, Mohamed	Bordeaux 1
Najar, Slaheddine	ENIG
Oustaloup, Alain	Univ. Bordeaux 1 - IPB/ENSEIRB-MATMECA
Abdelkrim, Mohamed Naceur	ENIG
14:40-15:00	FrB03.2
<i>A Covariance-Matching Criterion in the Frisch Scheme Identification of MIMO EIV Models</i> , pp. 16I Ĩ -16I G	
Diversi, Roberto	Univ. of Bologna
Guidorzi, Roberto	Univ. of Bologna
15:00-15:20	FrB03.3
<i>Model Order Determination Based on Rank Properties of Almost Singular Covariance Matrices</i> , pp. 16I H-16I ĩ .	
Soderstrom, Torsten	Uppsala Univ.
15:20-15:40	FrB03.4
<i>Identification of 6 DOF Rigid Industrial Robots with the Instrumental Variable Method</i> , pp. 16I J-16I ĩ .	
Janot, Alexandre	ONERA
Vandanjon, Pierre-Olivier	LUNAM Univ. Ifsttar,
Gautier, Maxime	Univ. of Nantes/IRCCyN
15:40-16:00	FrB03.5
<i>MIMO Closed-Loop Subspace Model Identification and Hovering Control of a Coaxial Mini Helicopter with 3 DOFs</i> , pp. 16I ĩ -16I €.	
Matsuba, Ikko	Osaka Inst. of Tech.
Ushida, Shun	Osaka Inst. of Tech.
Oku, Hiroshi	Osaka Inst. of Tech.
16:00-16:20	FrB03.6
<i>Adaptive Control of Asynchronous Sequential Machines: An Algebraic Formulation</i> , pp. 16I F-16I 6.	
Yang, Jung Min	Catholic Univ. of Daegu
Hammer, Jacob	Univ. of Florida
<b>FrB04</b>	Meeting Studio 212
<b>Mechanical Applications 3 (Regular Session)</b>	
Chair: Peeters, Bart	LMS International
Co-Chair: Stoev, Julian	Flanders' MECHATRONICS Tech. Centre
14:20-14:40	FrB04.1
<i>Data Driven Modelling of the Dynamic Wake between Two Wind Turbines</i> , pp. 16I ĩ -16I G	
Knudsen, Torben	Aalborg Univ.
Bak, Thomas	Aalborg Univ.
14:40-15:00	FrB04.2
<i>Fault Tolerant Control of Variable-Speed Variable-Pitch Wind Turbines: A Subspace Predictive Control Approach</i> , pp. 16I H-16I ĩ .	
Soliman, Mostafa	Univ. of Calgary
Malik, O.P.	The Univ. of Calgary
Westwick, David	Univ. of Calgary
15:00-15:20	FrB04.3
<i>Interval LPV Identification and Fault Diagnosis of a Real Wind Turbine</i> , pp. 16I J-16I ĩ .	
Josep Lluís, Negre	Alstom Power Wind
Puig, Vicenc	Univ. Pol. de Catalunya

Pineda, Isaac	Alstom Power Wind
15:20-15:40	FrB04.4
<i>On the Periodic Noise Affecting Wheel Speed Measurement</i> , pp. 16JĪ -1Ī €€.	
Panzani, Giulio	Pol. di Milano
Corno, Matteo	Pol. di Milano
Savaresi, Sergio	Pol. di Milano
15:40-16:00	FrB04.5
<i>Longitudinal Velocity Estimation in Single-Track Vehicles</i> , pp. 1Ī €F-1Ī €Ī .	
Panzani, Giulio	Pol. di Milano
Corno, Matteo	Pol. di Milano
Savaresi, Sergio	Pol. di Milano
16:00-16:20	FrB04.6
<i>Parameter Identification and Contact Modeling for Planetary Wheeled Rovers in Soft Soil</i> , pp. 1Ī €Ī -17FG	
Carvalho Leite, Alexandre	Deutsches Zentrum für Luft- und Raumfahrt
Gallina, Alberto	DLR
Schaefer, Bernd	Deutsches Zentrum furt Luft- und Raumfahrt
<b>FrB05</b>	Meeting Studio 213
<b>Biological Applications 2 (Regular Session)</b>	
Chair: Ionescu, Clara	Ghent Univ.
Co-Chair: Allgower, Frank	Univ. of Stuttgart
14:20-14:40	FrB05.1
<i>Advances in Chemical Reaction Network Theory for the Identification of Kinetic Models</i> , pp. 17FH-17FĪ .	
Otero Muras, Irene	ETH Zurich
Yordanov, Pencho	ETH Zurich
Stelling, Joerg	ETH Zurich
14:40-15:00	FrB05.2
<i>Structural and Practical Identifiability of Approximate Metabolic Network Models</i> , pp. 17FJ-17G .	
Berthoumieux, Sara	INRIA Grenoble-Rhône-Alpes
Kahn, Daniel	Univ. of Lyon 1, INRA
de Jong, Hidde	INRIA Rhône-Alpes
Cinquemani, Eugenio	INRIA Grenoble - Rhône-Alpes
15:00-15:20	FrB05.3
<i>Structure Estimation for Unate Boolean Models of Gene Regulation Networks</i> , pp. 17G -17H€.	
Breindl, Christian	Univ. Stuttgart
Chaves, Madalena	INRIA
Gouze, Jean-Luc	INRIA
Allgower, Frank	Univ. of Stuttgart
15:20-15:40	FrB05.4
<i>Global Sensitivity Analysis and Estimation of Photophysical Parameters from in Vivo Data in Photodynamic Therapy</i> , pp. 17H-17HĪ .	
Dobre, Simona	ISL, French-German Res. Inst. of Saint-Louis
Tylcz, Jean-Baptiste	CRAN
Bastogne, Thierry	Univ. Henri Poincaré, Nancy 1
Barberi-Heyob, Muriel	CAV (Centre Alexis Vautrin), Centre le Luttre contre le Cancer
15:40-16:00	FrB05.5
<i>Recurrence Indicators for the Identification of Spatial Patterns</i> , pp. 17HĪ -17I G	
Facchini, Angelo	Univ. di Siena

Mocenni, Chiara	Univ. of Siena
16:00-16:20	FrB05.6
<i>Effects of Introducing Fractional Dynamics in Hill's Model for Muscle Contraction</i> , pp. 1713-1714.	
HosseinNia, S. Hassan	Univ. de Extremadura
Romero Sánchez, Francisco	Univ. of Extremadura
Tejado, Inés	Univ. of Extremadura, Industrial Engineering School
Vinagre, B. M.	Univ. de Extremadura
Alonso, Javier	Univ. of Extremadura

**FrB06** Meeting Studio 214/216  
**Parameter Varying Systems 2** (Invited Session)

Chair: Tóth, Roland	Delft Univ. of Tech.
Co-Chair: Camino, Juan F.	Univ. of Campinas (UNICAMP)
Organizer: Tóth, Roland	Delft Univ. of Tech.
Organizer: Swevers, Jan	K. U. Leuven

14:20-14:40 FrB06.1

*Sparse Estimation for Predictor-Based Subspace Identification of LPV Systems (I)*, pp. 171J-1714.

Gebraad, Pieter	T.U. Delft
Wingerden, van, Jan-Willem	Delft Univ. of Tech.
Verhaegen, Michel	Delft Univ. of Tech.

14:40-15:00 FrB06.2

*Identification of LPV Systems with Non-White Noise Scheduling Sequences (I)*, pp. 171I-171E.

Lopes dos Santos, P.	Univ. do Porto
Ramos, Jose	Nova Southeastern Univ.
Azevedo Perdicoulis, T-P	UTAD & ISR-Coimbra
Martins de Carvalho, J.L.	Faculdade de Engenharia da Univ. do Porto

15:00-15:20 FrB06.3

*Nonparametric Identification of LPV Models under General Noise Conditions: An LS-SVM Based Approach (I)*, pp. 171F-171I.

Laurain, Vincent	Univ. de Lorraine, CNRS
Tóth, Roland	Delft Univ. of Tech.
Zheng, Wei Xing	Univ. of Western Sydney
Gilson, Marion	Nancy-Univ.

15:20-15:40 FrB06.4

*Input-Output LPV Model Identification with Guaranteed Quadratic Stability (I)*, pp. 171J-171G.

Cerone, Vito	Pol. di Torino
Piga, Dario	Delft Univ. of Tech.
Regruto, Diego	Pol. di Torino
Tóth, Roland	Delft Univ. of Tech.

15:40-16:00 FrB06.5

*Interpolated Modeling of LPV Systems Based on Observability and Controllability (I)*, pp. 171H-171I.

De Caigny, Jan	Katholieke Univ. Leuven
Pintelon, Rik	Vrije Univ. Brussel
Camino, Juan F.	Univ. of Campinas (UNICAMP)
Swevers, Jan	K. U. Leuven

16:00-16:20 FrB06.6

*LPV Model Identification for a Web Winding System (I)*, pp. 171J-171I.

Ruiz, Fredy	Pontificia Univ. Javeriana
Vuelvas, José	Pontificia Univ. Javeriana
Novara, Carlo	Pol. di Torino

**FrB07** Meeting Studio 215

**Recursive Identification - Orthogonal Basis Functions**  
(Regular Session)

Chair: Wahlberg, Bo	KTH Royal Inst. of Tech.
Co-Chair: Van den Hof, Paul	Eindhoven Univ. of Tech.
M.J.	

14:20-14:40 FrB07.1

*Efficient Iterated Filtering*, pp. 171I-171J.

Lindström, Erik	Lund Inst. of Tech.
Ionides, Edward	Department of Statistics, Univ. of Michigan, Ann Arbor, Mich.
Frydendall, Jan	Tech. Univ. of Denmark
Madsen, Henrik	Tech. Univ. of Denmark

14:40-15:00 FrB07.2

*Estimation of the Parameters of Structures Using Acceleration Measurements*, pp. 171JF-171J.

Garrido-Moctezuma, Rubén Alejandro	Centro de Investigacion y de Estudios Avanzados del I.P.N.
Concha Sánchez, Antonio	Centro de Investigación y de Estudios Avanzados del IPN

15:00-15:20 FrB07.3

*Contingency Estimation of States for Unmanned Aerial Vehicle Using a Spherical Simplex Unscented Filter*, pp. 171J-171K.

Hahn, Tobias	Univ. of Rostock
Hansen, Søren	Tech. Univ. of Denmark
Blanke, Mogens	Tech. Univ. of Denmark

15:20-15:40 FrB07.4

*Approximate Bayesian Recursive Estimation of Linear Model with Uniform Noise*, pp. 171K-171L.

Karny, Miroslav	Inst. of Information Theory And Automation, A V C R
Pavelkova, Lenka	Inst. of Information Theory and Automation, Acad. of Scien

15:40-16:00 FrB07.5

*Preliminary Process Information and Its Use in OBF-TD Model Estimation*, pp. 171L-171M.

Santos, João B. M.	Univ. Federal de Campina Grande
Barros, Péricles R.	Univ. Federal de Campina Grande

16:00-16:20 FrB07.6

*An Elastic Net Orthogonal Forward Regression Algorithm*, pp. 181F-181G.

Hong, Xia	Reading
Chen, Sheng	Univ. of Southampton

**FrS2S** Grand Hall

**Software Session 2** (Software Session)

Chair: Schumann, Reimar	Uni. App. Sciences & Arts Hannover
Co-Chair: Godfrey, Keith Richard	Univ. of Warwick
Organizer: Schumann, Reimar	Univ. of Applied Sciences and Arts

14:20-16:20 FrS2S.1

*ADAPT-Lpv Software for Identification of Nonlinear Parameter-Varying Systems (I)*, pp. 181G-181H.

Larimore, Wallace	Adaptics, Inc
Buchholz, Michael	Univ. Ulm

14:20-16:20 FrS2S.2

*Version 8 of the Matlab System Identification Toolbox (I)*, pp. 181G-181H.



