Research Centre Data – Algorithms – Decision Making

3rd International Workshop on Data – Algorithms – Decision Making

December 9 - 11, 2007   Liblice, Czech Republic

Programme chair: Martin Janžura   Organization chair: Jiří Ivánek

PROGRAMME

12,00 – 14,00   **Lunch**

December 9, 2007, Afternoon   **Session 1, chairman: Radim Jiroušek**

14,00 – 14,50   **On Learning Bayesian Network Structures: Algebraic and Geometric View**
Milan Studený (Institute of Information Theory and Automation)
Jiří Vomlel (Institute of Information Theory and Automation)

14,50 – 15,30   **Human Reasoning about Uncertain Conditionals**
Niki Pfeifer (University of Salzburg)
Gernot D. Kleiter (University of Salzburg)

15,30 – 16,00   **Finding Solution of Coalition Games by Bargaining Schemes**
Dan Butnariu (Department of Mathematics, University of Haifa, Izrael)
Tomáš Kroupa (Institute of Information Theory and Automation)

16,00 – 16,30   **Coffee Break**

         Session 2, chairman: Miroslav Kárný

16,30 – 17,10   **Fully Probabilistic Design: Basis and Relationship to Bayesian Paradigm**
Miroslav Kárný (Institute of Information Theory and Automation)

17,10 – 17,50   **Active Change Detection and Control**
Ivo Punčochář (Fac. of Applied Sciences, University of West Bohemia)
Miroslav Šimandl (Fac. of Applied Sciences, University of West Bohemia)

17,50 – 18,10   **Nuclear Medicine, Treatment of Thyroid Cancer and Mathematical Modelling**
Ladislav Jirsa (Institute of Information Theory and Automation)
Ferdinand Varga (2nd Medical School, Charles University, Institute of Biophysics)

18,10 – 18,30   **Decision Support Principles Applied to Model Mixing**
Pavel Ettler (COMPUREG Plzeň)

18,30 – 19,30   **Supper**

19,30 – 20,30   **Poster Session**

20,30 – 23,00   **Social Session**

PROGRAMME

8,30 – 9,10   **Topological Spaces of Rough Set Theory**
Milan Vlach (The Kyoto College of Graduate Studies for Informatics)

9,10 – 9,40   **Image Analysis - Progress in 2007**
Jan Flusser (Institute of Information Theory and Automation)

9,40 – 10,10   **Multichannel Restoration of Images with Space-variant Blur**
Michal Šorel (Institute of Information Theory and Automation)
Jan Flusser (Institute of Information Theory and Automation)

10,10 – 10,40   **Coffee Break**

10,40 – 11,20   **Ultrasound Computer Tomography for Breast Cancer Diagnosis**
Nicole Ruiter (Forschungzentrum Karlsruhe)

11,20 – 11,40   **Attenuation Imaging Using Ultrasound Transmission Tomography**
Radovan Jiřík (Brno University of Technology)
Igor Peterlík (Brno University of Technology)
Jiří Jan (Brno University of Technology)
Dušan Hemzal (Brno University of Technology)
Nicole Ruiter (Forschungzentrum Karlsruhe)
Rainer Stotzka (Forschungzentrum Karlsruhe)

11,40 – 12,00   **Calibration of an Ultrasonic Computed Tomography System**
Adam Filipík (Brno University of Technology)
Jiří Jan (Brno University of Technology)
Igor Peterlík (Brno University of Technology)
Dušan Hemzal (Brno University of Technology)
Radovan Jiřík (Brno University of Technology)

12,00 – 14,00   **Lunch**

14,00 – 14,40   **Multiresolution Satellite Image Segmentation by H-MMC Model-based Algorithm**
Giuseppe Scarpa (Dipart. Ing. Electronica e delle Telecomunicazioni, Italy)

14,40 – 15,10   **Model-Based Pattern Recognition and Modeling**
Michal Haindl (Institute of Information Theory and Automation)

15,10 – 15,30   **Are Better Feature Selection Methods Actually Better ?**
Petr Somol (Institute of Information Theory and Automation)
Jana Novovičová (Institute of Information Theory and Automation)

15,30 – 16,00   **Texture Defect Detection**
Michal Haindl (Institute of Information Theory and Automation)
Jiří Grim (Institute of Information Theory and Automation)
Stanislav Mikeš (Institute of Information Theory and Automation)

16,00 – 16,30   **Coffee Break**

16,30 – 17,10   **Bregman Distances, ϕ-divergences, Finance and Censoring**
Wolfgang Stummer (University of Erlangen-Nurnberg)
Igor Vajda (Institute of Information Theory and Automation)

17,10 – 17,50   **Blind Source Separation Methods Based on Appr. Joint Diag. Algorithms**
Petr Tichavský (Institute of Information Theory and Automation)
Tomáš Marek (Institute of Information Theory and Automation)

17,50 – 18,10   **New Estimation Results in Regression**
Tomáš Hobza (Institute of Information Theory and Automation)

18,10 – 18,30   **Testing Hypotheses in Exponential Families of Stochastic Processes**
Lucie Fajfrová (Institute of Information Theory and Automation)
Karel Vrbenský (Institute of Information Theory and Automation)

18,30 – 19,30   **Supper**   **(19,30 – 20,30 Zasedání Rady Centra)**

PROGRAMME

8,30 – 9,10	**On Arithmetic Fuzzy Models** Martin Štěpnička (ÚVAFM OU Ostrava) Bernard De Baets (Ghent University) Lenka Nosková (ÚVAFM OU Ostrava)
9,10 – 9,35	**Solving ODE with Fuzzy Initial Condition using Fuzzy Transform** Irina Perfilieva (ÚVAFM OU Ostrava) Dagmar Plšková (ÚVAFM OU Ostrava)
9,35 – 10,00	**Abstract Components for Process Modelling using Information Systems** Jaroslav Procházka (OASA COMPUTERS)
10,00 – 10,30	**Coffee Break**

Session 7, chairman: Miroslav Kárný

10,30 – 11,10	**Simulation Results of Urban Traffic Control Algorithm** Jan Přikryl (Institute of Information Theory and Automation)
11,10 – 11,35	**State Estimation with Unknown Noise Covariance Matrices** Jindřich Duník (Fac. of Applied Sciences, University of West Bohemia) Miroslav Šimandl (Fac. of Applied Sciences, University of West Bohemia)
11,35 – 12,00	**Emulation of ELS3 Traffic Controller in TSS Aimsun Simulation Environment** Libor Šeps (ELTODO dopravní systémy, s.r.o.) Dušan Vaněk (ELTODO dopravní systémy, s.r.o.)
12,00 – 14,00	**Lunch**
14,00 – 14,30	**Departure**

LIST OF POSTERS

Approximate Estimation of the Linear Uniform State-Space Model
Lenka Pavelková (Institute of Information Theory and Automation)

New Approach to the Switching of State
Pavla Pecherková (Institute of Information Theory and Automation)

Jobcontrol - Software Tool for System Identification and Control
Ludvík Tesař (Institute of Information Theory and Automation)
Miroslav Novák (Institute of Information Theory and Automation)

Decentralized Adaptive Control Via Merging of Multi-step Predictors
Václav Šmídl (Institute of Information Theory and Automation)
Josef Andrýsek (Institute of Information Theory and Automation)

Polar and Radon's Transforms for Affine Invariant 2D Recognition
Kateřina Nováková (CTU in Prague, F. of Nuclear Sciences and Physical Engineering)
Jaromír Kukal (ICT Prague, Faculty of Chemical Engineering)

Importance Functions in Particle Filtering
Onřej Straka (Fac. of Applied Sciences, University of West Bohemia)

Image Retrieval Measures Based on Illumination Invariant Textural MRF Features
Pavel Vácha (Institute of Information Theory and Automation)
Michal Haindl (Institute of Information Theory and Automation)

Registration Framework for the Autouorescence and Infrared Images
Radim Kolář (Brno University of Technology)
Jiří Jan (Brno University of Technology)

Texture Analysis of Retinal Nerve Fiber Layer in Color Fundus Images
Radim Kolář (Brno University of Technology)
Jiří Jan (Brno University of Technology)
Tomáš Kuběna (Oční ordinace, Zlín)
Pavel Černošek (Oční ordinace, Zlín)

Simulation of Forward Task Solution in 3D USCT
Jiří Roleček (Brno University of Technology)
Dušan Hemzal (Brno University of Technology)
Jiří Jan (Brno University of Technology)