

# Zpravodaj pro kybernetiku a informatiku

**ČSKI** Česká společnost pro kybernetiku a informatiku

červen  
2005

Člen: CEPIS, ECCAI, ESSU, IAPR, IASS/AIS, IFAC, IFIP. Založena 1966.

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Vážení kolegové,

jako každoročně, i letos Vám připomínáme potřebu uhradit členské příspěvky. Jejich výše se nemění (200 Kč pro řádné členy a 60 Kč pro studenty a důchodce) a nemění se ani způsob platby: převodem z účtu na účet ČSKI (č.ú. 0208673319/0800 - nezapomněte uvést jako variabilní symbol své členské číslo) nebo v hotovosti u paní Zelenkové (po předchozí dohodě na tel. čísle 2 6605 3250).

Opět prosíme ty z Vás, kteří dosud neuhradili loňský členský příspěvek, aby dlužnou částku zaplatili spolu s příspěvkem letošním.

Připomínám, že pro to, abyste od podzimu dostávali Zpravodaj do své schránky poštovní (tištěnou formu) nebo e-mailové (.pdf soubor), je třeba, abyste nás o to požádali. U těch, kdo se neozvou, předpokládáme, že si vždy koncem měsíce vyhledají Zpravodaj na webových stránkách ČSKI.

Dagmar Harmancová

## Červnové kalendárium

1. **M. Daniel:** Transformace domněnkových funkcí do pravděpodobnosti
7. **J. Kadlec:** Částečná dynamická rekonfigurace programovatelných obvodů ATMEL
14. **J. Hajos:** How many spares do we really need?
15. **I. Kramosil:** Possibilistické míry druhého řádu (pokračování)
16. **D. Morales:** Introduction to ADSL Technology
16. **Ch. Kumbruck:** Trust in Internet
22. **E. Turunen**

## Odborná skupina aplikované matematické logiky

Vás zve na semináře, které se konají vždy ve středu v 9:00 hod. v zasedacím sále Ústavu informatiky AV ČR (místnost č. 318), Pod vodárenskou věží 2, 182 07 Praha 8 – Libeň, stanice metra C Ládví.

**Program:**

1. června **Milan Daniel:** Transformace domněnkových funkcí do pravděpodobnosti
15. června **Ivan Kramosil:** Possibilistické míry druhého řádu (pokračování)
22. června **Esko Turunen** (Tampere University of Technology, Finland): bude oznámeno dodatečně

## Výzkumné centrum Data - Algoritmy - Rozhodování Odborná skupina „Rozhodování a řízení za neurčitostí“

[http://www.utia.cas.cz/AS/seminars/scigroup\\_cz.htm](http://www.utia.cas.cz/AS/seminars/scigroup_cz.htm)

Vás srdečně zvou na pravidelné úterní přednášky v místnosti č. 474 v budově ÚTIA AV ČR, Pod vodárenskou věží 4, 182 08 Praha 8 – Libeň.

Tipy a nabídky přednášek: M. Kárný (26605 2274, school@utia.cas.cz)

**Jiří Kadlec**

(Ústav teorie informace a automatizace, AV ČR, oddělení zpracování signálů, Pod vodárenskou věží 4, Praha 8, tel: +420 26605 2216, e-mail: kadlec@utia.cas.cz)

**Částečná dynamická rekonfigurace programovatelných obvodů ATMEL**

Přednáška se koná **7. 6. 2005 od 14:00 hod.**

*Souhrn.* Bude vysvětlena metodika návrhu programovatelných polí dovolující během provozu částečnou dynamickou rekonfiguraci. Rezervovaná oblast programovatelného HW může během aplikace implementovat řadu algoritmů. Lze tak dosáhnout nižší ceny a spotřeby.

Celý postup návrhu byl navržen a implementován v rámci ukončeného EU FP5

projektu Reconf ve spolupráci s firmou Atmel. Metoda návrhu bude prezentovaná pro obvod FPSLIC firmy Atmel a pro rozšířené návrhové prostředí Figaro. Předvedeme použití FPSLIC čipu pro kompresi/dekompresi mluvené řeči metodou ADPCM v reálném čase s ukládáním dat do paměťové karty s kapacitou až 18 hodin záznamu.

**Domingo Morales**

(Universidad Miguel Hernández de Elche, Departamento de Estadística y Matemática Aplicada, Avda. del Ferrocarril s/n. 03202 Elche tel: 966658709, e-mail: d.morales@umh.es)

## Introduction to ADSL Technology

Přednáška se koná **16. 6. 2005 od 14:00 hod.**

*Souhrn.* The object of any simulation study is related to the estimation of one or more expectations. Thus we can regard the problem as evaluating frequently complex and high-dimensional integrals. It is not then surprising that simulation has been used to estimate integrals with no mention of a stochastic model. This is known as Monte Carlo integration and is one of the most fruitful fields for variance reduction techniques.

Variance reduction can be viewed as a means to use known information about the problem in order to improve the effectiveness of a simulation experiment for a given cost (or reduce the cost for a prescribed effectiveness). Main techniques fall into one of the following categories: (a) importance sampling, (b) control and antithetic variates, (c) conditioning, and (d) common variates.

In the talk an overview of the Monte Carlo method and the variance reduction techniques is given. Several examples will be presented to illustrate the procedures and to show the reduction of cost (number of iterations) to achieve a given precision.

## Výzkumné centrum Data - Algoritmy - Rozhodování Odborná skupina pro inteligentní systémy

Vás srdečně zvou na pravidelné úterní přednášky v místnosti č. 474 v budově ÚTIA AV ČR, Pod vodárenskou věží 4, 182 08 Praha 8 – Libeň.

Tipy a nabídky přednášek: R. Jiroušek (26605 2046, radim@utia.cas.cz)

**Joel Hajos**

(Technion - Israel Institute of Technology, Haifa, Izrael e-mail: hajos@netvision.net.il)

## How many spares do we really need?

Přednáška se koná **14. 6. 2005 od 14:00 hod.**

*Souhrn.* Performance prediction of industrial systems as measured by system reliability and availability is considered. A computer, Monte Carlo based model is presented and illustrated.

System modeling takes into account the system structure, failure modes and their detection, times to failure, times to repair and shipment times, maintenance modes, spare part allocation, cost considerations etc. The tool usage in managerial decisions in various stages of system development is demonstrated.

## Gerstnerova laboratoř a Odborná skupina pro umělou inteligenci

zvou všechny zájemce na seminář:

**Christel Kumbruck (University of Bremen) (Priv. Doz. Dr.)**

## Trust in Internet

**ve čtvrtek 16. června 2005 od 16.00 hod.** Přednáška se koná na Masarykově koleji v Dejvicích

*Pozor! Nestandardní místo, den i čas!*

*Souhrn.* The tutorial deals with the following topics:

I. Trust building

- Trust – why is it important?
  - The conditions of trust
  - Trust in people and trust in systems – Giddens concept of trust building
  - Socio-technical system approach – people, organisation, technique
  - Typical dangers in Internet in opposition to paper mediated or face-to-face communication
  - Conditions of trust building in Internet
- II. Trust building in Internet – state of the art
- Socio-psychological approach
  - Approach of Computer Science
- III. Socio-technical solution: the concept TrustCaps

## Různé konference

**ICMLA'05** The Fourth International Conference on Machine Learning and Applications, December 15-17, 2005, Sheraton Gateway Hotel, Los Angeles, CA, USA. Submissions deadline: June 20, 2005.  
<http://www.cs.csuabak.edu/icmla/icmla05/>

**AI05** The 18th Australian Joint Conference on Artificial Intelligence, December 5-9, 2005, UTS, Sydney, Australia. Submissions deadline: July 1, 2005.  
<http://attend.it.uts.edu.au/ai05/>

**ACAL 2005** The Second Australian Conference on Artificial Life, December 5-8, 2005, Sydney, Australia. Submissions deadline: June 30, 2005.  
<http://www.itee.adfa.edu.au/abbass/acal05/>

**CIS 2005** 2005 International Conference on Computational Intelligence and Security, December 15-19, 2005, Xi'an, China. Submissions deadline: July 31, 2005.  
<http://www.comp.hkbu.edu.hk/cis05>

**CS&P** Concurrency Specification and Programming, September 29-30, 2005, Ruciane-Nida, Poland. Submissions deadline: July 01, 2005.  
[www.wsiz.rzeszow.pl/csp2005](http://www.wsiz.rzeszow.pl/csp2005)

**WBE 2006** The Fifth IASTED International Conference on Web-based Education, January 23-25, 2006, Puerto Vallarta, Mexico. Submissions deadline: September 15, 2005.  
<http://www.iasted.org/conferences/2006/mexico/c504.htm#wbe>

**SEA 2005** The Ninth IASTED International Conference on Software Engineering and Applications, November 14-16, 2005, Phoenix, Arizona, USA. Submissions deadline: July 1, 2005.  
<http://www.iasted.org/conferences/2005/phoenix/c467.htm?sea>

**INTETAIN 2005** Intelligent Technologies for Interactive Entertainment, November 30 - December 2, 2005, Madonna di Campiglio, Italy. Submissions deadline: July 18, 2005.  
<http://www.intetain.org>

**KR2006** Tenth International Conference on Principles of Knowledge Representation and Reasoning, June 2 - 6, 2006 (Provisional), Lake District, United Kingdom. Submissions deadline: November 7, 2005.  
<http://www.kr.org/KR2006>

**ROCOND'06** IFAC Symposium on Robust Control Design, July 5-7, 2006, Toulouse, France. Submissions deadline: September 1, 2005.  
[www.laas.fr/rocond06](http://www.laas.fr/rocond06)

**ICIEA 2006** 1st IEEE Conference on Industrial Electronics and Applications, May 24-26, 2006, Singapore. Submissions deadline: October 1, 2005.  
<http://www.ieee.org/iciea2006/>

## Volná místa

### ABB Corporate Research Center

ABB ([www.abb.com](http://www.abb.com)) is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact.

For our Corporate Research Center in Bangalore, India, we are looking for highly qualified engineers (preferable PhD) to work in control technologies applied for chemical and pharmaceutical processes, metals and minerals industries, or power systems. Your tasks will include the creation of mathematical models for these processes, identification of model parameters, validation of the process models, development of appropriate control and optimization strategies. Finally, you will participate in the installation and commissioning of the solution on site.

A strong foundation in mathematics and physics coupled with an element of pragmatism will enable you, the control engineer, chemical engineer, information technologist, or mathematician/physicist with control theory background, to contribute your knowledge to the automation and optimization of complex processes. Expertise and interest in optimization and stochastics are particularly welcome. Knowledge of the mentioned industrial processes is an asset. You will work independently, using a great deal of initiative, in a friendly research and development environment.

If you are interested, please, send your application (cover letter with a statement of interests, full CV and publication list) to the address Nisha Binner, HR, ABB

Corporate Research Limited, Khanija Bhavan, 2nd and 4th Floor, East Wing, No. 49, Race Course Rd., Bangalore - 560 001  
Nisha.Binner@in.abb.com

### ETH Switzerland

The Swiss Federal Institute of Technology (ETH), Zurich opens a position in the mechanical and process engineering department for a professor of automatic control. Teaching duties encompass courses on the theoretical foundations and relevant applications of control engineering for students of the department of mechanical and process engineering and the department of information technology and electrical engineering. Possible research areas are the synthesis of robust control systems, automated calibration of complex control systems, or control of large-scale and distributed control systems. Potential application areas are the control of aerospace systems, autonomous vehicles, or biomedical systems.

In addition to an appropriate university degree, the successful candidate possesses a Ph.D. and an outstanding research and teaching record in the field. Furthermore, the willingness and ability to collaborate with colleagues inside and outside of ETH Zurich as well as with industrial partners is a prerequisite. Courses at the graduate level may be taught in English.

Please submit your application together with a curriculum vitae and a list of publications to the President of ETH Zurich, Prof. Dr. O. Kuebler, ETH Zentrum, CH-8092 Zurich, no later than July 31, 2005. With a view towards increasing the proportion of female professors, ETH Zurich specifically encourages female candidates to apply.

### University of New Orleans USA

The University of New Orleans, Department of Electrical Engineering invites applications for up to three tenure-track faculty positions at the Assistant, Associate, or Full Professor levels. One position may be at the senior level in the joint areas of Biomedical Engineering and Electrical/Computer Engineering, particularly Biomedical Signal or Image Processing. The applicants must have an outstanding record of research accomplishments, an excellent external funding history, and demonstrated strong leadership of a research team. The successful candidate will play a key role in the development of a graduate biomedical engineering program, proposed jointly by the College of Engineering, University of New Orleans, and the Louisiana State University Health Sciences Center. Strong candidates in all areas of electrical engineering will be considered seriously for the other positions. Positions will be filled as applications are received and the search will terminate when all positions are filled. The expected starting date is August 2005. All successful candidates will be expected to direct graduate research at the MS and PhD levels, develop externally funded research programs, and teach graduate and undergraduate courses. A PhD in electrical engineering or a closely related field is required. Salary and academic rank will be competitive and commensurate with experience and qualifications. Interested persons should send a resume with names, addresses, email addresses, and telephone numbers of at least four references to Mr. Daniel Rahey ([drahey@uno.edu](mailto:drahey@uno.edu)), Department of Electrical Engineering, University of New Orleans, Lakefront, New Orleans, LA 70148 USA.

More information about the department can be found at <http://ece.engr.uno.edu/>.

### University of Naples Federico II Italy

Post-Doc Position Department of Systems and Computer Science, Faculty of Engineering, University of Naples Federico II, Italy

A 12 months postdoctoral position is available within the Nonlinear systems and Control group of the University of Naples Federico II (<http://www.sincro.unina.it>). Applicants should have obtained a PhD on the analysis and control of nonsmooth and hybrid dynamical systems, and/or nonlinear dynamics of non-smooth systems.

The successful candidate will be responsible for both theoretical and practical research in the area of hybrid and nonsmooth dynamical systems and control within the scope of the EU project SICONOS (Simulation and Control of Nonsmooth Systems) - <http://siconos.inrialpes.fr>

The position is for a period of 12-months and is available starting as soon as September 2005.

Interested applicants should send an email to Dr Mario di Bernardo ([mario.dibernardo@unina.it](mailto:mario.dibernardo@unina.it) or [m.dibernardo@bristol.ac.uk](mailto:m.dibernardo@bristol.ac.uk)) enclosing a full CV and list of publications.

Vydává Česká společnost pro kybernetiku a informatiku pro potřeby svých členů. Neprodejné. Neprošlo korekturami ani jazykovou úpravou. Informace o členství v ČSKI na jejím sekretariátě. Příspěvky posílejte na adresu sekretariátu (přednostně emailem a v elektronické formě LaTeX).

Uzávěrka příštího čísla: 20. září 2005.

Texty z tohoto zpravodaje smějí být uveřejněny jinde jako celek i po částech. Prosíme ovšem o uvedení odkazu na ČSKI jako zdroj.