Prosincové kalendárium

Odborná skupina aplikované matematické logiky

Vás zve na semináře, které se konají vždy **ve středu** ve 14 hodin v zasedacím sále Ústavu informatiky AV ČR (místnost č. 318), Pod Vodárenskou věží 2, 182 07 Praha 8 – Libeň, stanice metra C Ládví.

Program:

4. prosince   **Matěj Dostál: Ordered universal algebra, algebraic theories and Morita theorems**

Sometimes doing something leads to the same result as doing something different. We are going to observe this phenomenon in the field of ordered universal algebra. In our approach, ordered universal algebra studies algebras with an underlying poset instead of a set, and with monotone (order-preserving) operations. Varieties, or classes of algebras that are definable by equations between terms, are replaced with classes definable by inequalities between terms. Forming a closure of a set of inequalities yields an algebraic theory. An interesting question arises: when do two different algebraic theories give rise to classes of algebras that are equivalent as categories? The result is known in classical universal algebra and generalises the work of Kiiti Morita in module theory. We show that the result generalises even to the world of ordered universal algebra.

18. prosince   **Vánoční posezení**

Odborná skupina pro stereologii

vás zve na *Seminář ze stochastické geometrie.*

Na semináři jsou referovány nové nebo aktuální výsledky z oboru stochastické geometrie, integrální geometrie, geometrické pravděpodobnosti, geometrické statistiky a stereologie.

Seminář se koná v úterý od 15:40 do 17:10 v seminární místnosti Katedry pravděpodobnosti a matematické statistiky MFF UK (Karlín, Sokolovská 83, 1. patro). Zájemci jsou srdečně zváni.

Program:

3. prosince   **Anna-Kaisa Ylitalo** (University of Jyväskylä, Finland)**:**
Looking at a painting: a statistical modeling perspective

10. prosince   **Christian Hirsch** (Universität Ulm)**:**
A general framework for consistent estimation of charge transport properties via random walks in random environments

Volná místa

Curtin University, Australia

Two PhD positions are available in the areas of systems and control theory at the Department of Mathematics and Statistics, Curtin University located in Perth, Australia. These positions cover full tuition fees plus a stipend. Requirements include a strong background in control theory, dynamic systems and mathematics (especially linear algebra); a Master's degree in mathematics or engineering; and excellent skills in using Matlab and/or Mathematica. It is expected that the candidates have strong oral and written communication skills as well as proficiency in written and spoken English.

The prospective PhD students are expected to start working in March-June 2014, and perform high-quality and innovative research in the area of tracking control with geometric/polynomial methods.

For further information, follow the link:
http://scholarships.curtin.edu.au/scholarships/scholarship.cfm?id=1548 If you are interested, please send an email to Dr. Lorenzo Ntogramatzidis at L.Ntogramatzidis@curtin.edu.au including:

(1) Your curriculum vitae and your top publication (if you have any).

(2) A paragraph that explains the undergraduate and MS courses you took related to dynamical systems and linear algebra.

(3) At least two contact information (including name, e-mail, and phone number of the person) for letter of recommendation requests (one of these contact information must include your current advisor).

Contact: Dr. Lorenzo Ntogramatzidis, Department of Mathematics and Statistics, Curtin University, Perth (WA), Australia.

E-mail: L.Ntogramatzidis@curtin.edu.au

University of Michigan, USA

Research Fellow (or Post-Doctoral) Position in Engine Control at the University of Michigan. Period: 1 year with possible extension. Compensation: Competitive upon qualifications, benefits, travel budget. Availability: Jan 2014 or earlier. Applicants should have background and interest in switching control, stochastic dynamics, physics-based modeling and parameterization, optimization, estimation and real-time implementation issues. Experience in automotive engines and combustion is desirable. Familiarity with software tools such as Matlab and Simulink is necessary. Additional important qualifications: 1) Ability to work and lead interdisciplinary research with a large team of professors, students, industrial collaborators, and scientists. 2) Dexterity in processing data and 3) Strong motivation in experimentally implementing and verifying advanced control algorithms. CV in pdf and further enquiries should be directed by e-mail to Anna G. Stefanopoulou (annastef@umich.edu) with Engine Control Position in the subject.

NEC Laboratories America, Inc., USA

The Energy Management department at NEC Labs America Inc. invites applications for a winter internship (3-6 mo.) focused on optimal control of dynamic systems related to distributed energy storage and generation as well as HVAC demand management. The intern will be expected to develop novel advanced control, optimization and system identification strategies for HVAC demand management and for integration of intermittent renewable power sources. The research should result in publications at premier conferences and lay foundation for product ideas

Job Requirements

- PhD student in EE/ME/CS (power systems/control/automation)

- Strong knowledge of optimal control, dynamic systems modeling and control theory, stochastic processes

- Experience and interest in applying control theory and implementing control systems in hardware and software to show tangible results

- Research background in control and optimization of different energy systems' operation and renewable power integration

Desired Skills

- Excellent MATLAB/C/C++/Python programming skills

- Experience in using D-Space or other controller implementation tools

- Well Versed in Modeling and Simulation of Dynamic Systems and Power Systems

Please submit your resume at
https://neclabs.hua.hrsmart.com/hrsmart/ats/Posting/view/1174