

# Zpravodaj pro kybernetiku a informatiku

**ČSKÍ** Česká společnost pro kybernetiku a informatiku

duben  
2016

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## Dubnové kalendárium

6. **K. Jobczyk: Towards a project of fuzzy logic of real analysis**
20. **P. Vojtáš: Driven by concrete applications – helps to investigate right notions – preferential fuzzy sets and some more**
27. **Z. Weber: Contradictions! An invitation to inconsistent mathematics**

## Odborná skupina aplikované matematické logiky

Vás zve na semináře, které se konají vždy ve středu v 10 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:

- 6. dubna Krystian Jobczyk: Towards a project of fuzzy logic of real analysis**  
The mutual relationships between fuzzy logic and functional analysis was observed and described in 1993 by D. Mundici in terms of mutual relationships between Łukasiewicz logic and  $C^*$ -algebras. Some new connections between fuzzy logic and analysis was described in the Hajek's seminal monograph "Mathematics of Fuzzy Logic" by proposing a new integral extension of the Rational Pavelka-Hajek Logic. The proposed talk will be aimed at proposing some new (possible) extensions of this research path towards a fuzzy logic systems – capable of expressing convolutions and the Allen's relations between intervals – expressed by integrals and convolutions. It seems that the proposed extensions could be applicable to a specification of solutions of such problems of temporal planning as: Simple Temporal Problem under Uncertainty and Preferences – initially introduced by R. Dechter.
- 20. dubna Peter Vojtáš: Driven by concrete applications – helps to investigate right notions – preferential fuzzy sets and some more**  
Motivated by recent talk of Rostislav Horčík "Why is Fuzzy Logic not Applied in Computer Science, yet?" in this seminar, we give a report on our experiences with fuzziness in computer science. We consider recommender systems where fuzzy degree is interpreted as a degree of preference of a user. Main task is to make a hit in top-10 and to be able to explain intuitively the decision. We report on preference learning experiments. We sketch the proof of completeness of our fuzzy logic programming system. We mention the threshold algorithm of R. Fagin.
- 27. dubna Zach Weber: Contradictions! An invitation to inconsistent mathematics**  
This talk is an introduction to paraconsistent logic and inconsistent mathematics. After presenting motivations and background, I will survey some of the main results in the area to date – from foundations of mathematics to formal semantics – and indicate some of the main open problems and challenges going forward.

## Různé konference

**BELIEF\*2016** – The 4th International Conference on Belief Functions, Prague, CZ, September 21-23, 2016. Paper submission deadline: April 15, 2016  
<http://belief.utia.cz>

**MMAR 2016** – 21st International Conference on Methods and Models in Automation and Robotics, Amber Baltic Hotel, Miedzyzdroje, Poland, August 29 - September 1, 2016. Paper submission deadline: April 11, 2016  
<http://www.mmar.edu.pl>

**ICCAS 2016** – International Conference on Control, Automation and Systems, HICO, Gyeongju, Korea, October 16-19, 2016. Paper submission deadline: May 13, 2016.  
<http://2016.iccas.org>

**CSEIT 2016** – 7th Annual International Conference on Computer Science Education: Innovation and Technology, Singapore, October 10-11, 2016. Paper submission deadline: April 25, 2016.  
<http://cseeducation.org/>

**WMSCI 2016** – The 20th World Multi-conference on Systemics, Cybernetics and Informatics, Orlando, Florida, USA, July 5-8, 2016. Paper submission deadline: April 12, 2016.  
<http://www.iis2016.org/wmsci/>

## Volná místa

### University of Salento, Lecce, Italy

A postdoc position will be soon available within the project OPT4SMART funded under the ERC Starting Grant excellence program. Research will be conducted at the University of Salento (Lecce, Italy), under the supervision of Prof. Giuseppe Notarstefano.

About the position: We are looking for motivated, talented PhDs from all over the world, who wish to:

- undertake/continue research at the cutting edge of optimization and control in cyber-physical networks;
- contribute to the startup of an excellent, international new research group;
- work in one of the most beautiful Italian cities with a great quality of life.

The initial appointment will be for one year with the possibility of extension based on performance. The salary is competitive (very competitive for the life cost in Italy). The postdoctoral researcher will work in a group with about six PhD students and will have the possibility to take the co-supervision of one or more of them.

About OPT4SMART (Distributed optimization methods for smart cyber-physical networks): OPT4SMART is a 5 years research project funded under the EU Horizon 2020 excellence program "ERC Starting Grant", <http://erc.europa.eu>, supporting investigator-driven frontier research on the basis of scientific excellence. OPT4SMART will investigate a novel distributed, large-scale optimization framework and its application to big-data estimation, learning, decision and control problems in cyber-physical networks.

About Lecce: Lecce is a beautiful Baroque city in the South-East of Italy. It is a lively, graceful but relaxed university town in the Salento peninsula, the heel of Italy's boot. For a 36-hours tour of Lecce you can google The New York Times: "36 hours in Lecce, Italy".

The desired candidate holds a PhD degree in Controls, Optimization, Signal Processing or related fields, and has i) an excellent publication record (few high-impact papers in high-quality journals and conferences); ii) a strong mathematical background including optimization and preferably control theory or signal processing; iii) strong interest in optimization and at least one of: control theory, estimation, machine learning; iv) excellent proficiency in written and spoken English. The above skills and background should clearly appear from the candidate CV, from few (the most important) publications, and from the PhD thesis.

For further information about the position and the official call you can send an email with subject "OPT4SMART Postdoc last-name" to [giuseppe.notarstefano@unisalento.it](mailto:giuseppe.notarstefano@unisalento.it).

See also

[http://cor.unisalento.it/notarstefano/opt4smart/Postdoc.OPT4SMART\\_flyer.pdf](http://cor.unisalento.it/notarstefano/opt4smart/Postdoc.OPT4SMART_flyer.pdf)

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

Uzávěrka příštího čísla: 27. dubna 2016.

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