

# Ústav informatiky

## Akademie věd České republiky

*Pod Vodárenskou věží 2, 182 07 Praha 8*

ÚI AV ČR ve spolupráci s Odbornou skupinou aplikované matematické logiky České společnosti pro kybernetiku a informatiku

pořádá

v seminární místnosti ÚI AV ČR - místnost č. 318  
(stanice metra C Ládví)

### Seminář aplikované matematické logiky

který se schází **ve středu ve 14.00 hod.**

*Program na duben 2015:*

8. 4. 2015 - *Milan Petřík*

**Finite, negative, totally ordered monoids and their extensions based on Rees quotients**

Finite, negative (integral), totally ordered monoids and their extensions based on Rees quotients are studied. As a result, a representation theorem is given for the extensions of the monoids in question as well as for the commutative and Archimedean cases. Furthermore, an algorithm which generates a tree of such monoids in a step-wise fashion is introduced. Our approach benefits from the level set representation of monoids and is inspired by web geometry.

15. 4. 2015 - *Katrin Příkrylová*

**How do logical connectives behave in natural language?**

Logical connectives are pretty well defined in every logical system and we can (usually) understand them as words of natural language(s). But how does this mapping work actually? Can we use the connectives from natural languages in the same - clearly and unambiguously defined - way? I will show examples from Czech (with translation into English, whenever possible) to illustrate how nice and clean is the world of logic compared with the natural language. Finally I will discuss the use of the logical connectives in the sentiment analysis.

22. 4. 2015 - *Tomáš Lávička*

**Beyond finitariness in abstract algebraic logic**

I will speak about some newly introduced hierarchy of logics in the field of Abstract Algebraic Logic. This hierarchy combines the notions of finitariness, completeness with respect to relatively subdirectly irreducible models and some properties of the closure system of all theories of a given logic. My goal for this talk is to introduce this hierarchy and to describe a separating example, which I have discovered for my master thesis.

29. 4. 2015 - *Milan Daniel*

**A Comparison of Plausibility Conflict and of Conflict Based on Amount of Uncertainty of Belief Functions**

Preliminaries of belief functions and general properties of conflicts of belief functions will be recalled. Authors's plausibility conflict and Harmanec's conflict based on uncertainty measure and Dempster's rule will be presented. Both the approaches will be analysed and compared. As the approaches are based on completely different assumptions, some of their properties are very different almost counter-intuitive for the first view; on the other hand, the approaches have some analogous properties, which differs both of them from the other commonly used approaches to conflict between belief functions.