

# Natural Language Services for Reasoners

## Call for Extended Abstracts & Demonstrations

NLSR 2014

International Workshop on Natural Language Services for Reasoners

A FLoC Workshop, affiliated to RTA-TLCA joint conference

July 18, 2014, Vienna, Austria.

Sponsored by FoLLI

### Scope

NLSR is a forum to gather researchers interested in the natural language aspects of:

- Multilingual on-line accessible mathematical content
- Advanced tools for automated and interactive theorem proving and problem solving.
- Rigorous reasoning methods and tools;
- Formal methods and tools (making them more accessible to non-experts).
- Generating explanations from *business rules*.

### Important Dates

**Deadline for contributions:** March 16

**Decision of acceptance:** April 20

**Camera-ready:** May 25

### Topics

The complexity of ATP and ITP makes them only usable by experts. One of the cornerstones of addressing a more general audience is the ability to be queried and to generate results in natural language. This necessity is palpable from the fact that many systems in the TP community (Coq,

Isabelle, PROVERB, Nuprl, P.rex, THEOREMA, etc.) try hard to make proofs as close as possible to the “natural language” of mathematicians.

In the area of education, intelligent tools such as automated and interactive theorem provers, the automatic discovery of properties tools, problems repositories, the formalisation of theories fragments, etc., can bring a whole new dimension to mathematical education. The current development of these tools is focused on usability for experts, and it is still a major challenge to make such tools ready for widespread use. However, for some tools it seems to be the right time to begin addressing the next challenge, i.e., to link and adapt them for specific educational needs.

On the side of language technology, some dialog managers use theorem provers to drive the underlying logic and controlled natural languages exist based on abstract representations compatible to the ones used in reasoners. A third aspect comes from formal representation of mathematics with the aim of automatic checking or translation of existing material.

It is important to have a meeting to explore collaboration for effective translation of machine and human-readable form, including sentence planning, robust parsing of natural language, multi-linguality and fluency of the result.

Previous conferences on this scientific area: ThEdu; CNL

### **Invited Speakers**

- Mohan Ganesalingam, Trinity College, Cambridge.
- Aarne Ranta, University of Gothenburg.

### **Programme Committee**

- Yannis Haralambous, Telecom Bretagne, Brest, France
- Walther Neuper, Graz University of Technology, Austria, [wneuper@ist.tugraz.at](mailto:wneuper@ist.tugraz.at)  
(co-chair)
- Bengt Nordström, Chalmers University of Technology, Sweden
- Pedro Quaresma, University of Coimbra, Portugal, [pedro@mat.uc.pt](mailto:pedro@mat.uc.pt)  
(co-chair)
- Jordi Saludes, Technical University of Catalonia, Spain, [jordi.saludes@upc.edu](mailto:jordi.saludes@upc.edu)  
(chair)

### **Submission**

We welcome submission of extended abstracts and demonstration proposals presenting original unpublished work which is not been submitted for

publication elsewhere.

All accepted extended abstracts and demonstrations will be presented at the workshop. The extended abstracts will be made available online.

Extended abstracts and demonstration proposals should be submitted via EasyChair: <https://www.easychair.org/conferences/?conf=nlsr2014>.

At least one author of each accepted extended abstract/demonstration proposal is expected to attend NLSR2014 and present his/her extended abstract/demonstration.