

# PPC 2010

CALL FOR PAPERS

## Propositional Proof Complexity: Theory and Practice

Workshop affiliated with the Federated Logic Conference (FLoC 2010)/ SAT 2010

Edinburgh, July 9, 2010

<http://baldur.ira.uka.de/PPC-2010>

Propositional proof complexity is an area of mathematics (theoretical computer science) within the intersection of mathematical logic and computational complexity and is centered around the question whether the complexity class NP is closed under complementation. It is tightly connected with other areas like computational complexity theory, automated theorem proving and cryptography. The purpose of the workshop is to bring together researchers in various parts of mathematics and computer science interested in propositional proof complexity. The topic of the workshop will be on propositional proof theory with connections to issues of complexity in the widest sense. Our aim is to expose, through invited and contributed talks, current developments in proof complexity that are most relevant to SAT-solving and automated theorem proving.

### Topics

The topics of the workshop will be on propositional proof complexity in the widest sense with connections to applications for which complexity issues are essential and include (but are not restricted to):

- Proof complexity of propositional proof systems: resolution, Frege systems, Nullstellensatz proofs etc.
- Complexity measures for proofs
- Automatizability of propositional proof systems
- Monotone circuit complexity in relation to propositional proof complexity

## **Workshop Chairs**

- Stefan Dantchev, Durham University, United Kingdom
- Olga Tveretina, University of Karlsruhe, Germany

## **Invited Speakers**

- Paul Beame, University of Washington, United States
- Nicola Galesi, Universita di Roma, Italy

## **Important Dates**

- Submission deadline: 26.03.2010
- Notification of acceptance: 23.04.2010
- Final papers due: 07.05.2010
- FLoC early registration deadline: tba
- Workshop: July 9, 2010

## **Program Committee**

- Stefan Dantchev, Durham University, United Kingdom
- Eugene Goldberg, Northeastern University, United States
- Barnaby Martin, Durham University, United Kingdom
- Alexander Razborov, The University of Chicago, United States
- Soren Riis, Queen Mary, University of London, United Kingdom
- Olga Tveretina, University of Karlsruhe, Germany
- Hans Zantema, Eindhoven University of Technology and Radboud University Nijmegen, The Netherlands

## Submission and selection procedure

Three categories of papers are solicited:

- *Category A*: Original papers (up to 12 pages, LNCS style) should describe original research and contain sufficient detail to assess the merits and relevance of the contribution. Simultaneous submission of material is prohibited.
- *Category B*: Work in progress (up to 6 pages, LNCS style).
- *Category C*: Presentation-only papers may describe work previously published (an abstract of up to 3 pages, LNCS style + a link to the already published paper). The abstracts of accepted presentation-only papers will appear in the informal proceedings to be distributed at the workshop (full papers in this category will not be inserted in the proceedings). We see this as a way to provide additional access to important ideas that the attendees may not be aware of.

The submission of papers presenting student's work and work in progress is encouraged. Submission of papers is via Easy chair

## Publication

The final versions of the selected contributions will be collected in a volume to be distributed at the workshop. These informal proceedings will also be made accessible on the web. We plan to publish selected papers in ENTCS or in a special journal issue on the topic of the PPC workshop after an extra refereeing round.