

Faculty of Mathematics University of Belgrade Serbia http://argo.matf.bg.ac.rs

COST Action IC0901 kick-off meeting, Brussels, Oct 30, 2009.

## **Group members:**

- dr Predrag Janičić
- dr Filip Marić
- Milan Banković
- Mladen Nikolić
- Vesna Pavlović
- Sana Stojanović
- Milena Vujošević-Janičić

**Current research areas:** 

- SAT/SMT solving
- Applications of SAT/SMT solvers
- Geometry reasoning

**SAT/SMT** solving:

- SAT solver ArgoSAT
- Formal correctness proofs (in Isabelle)
- Heuristics for instance-based selection of parameters
- SMT solver ArgoLib
- New version ArgoSMT is under development (with additional solvers)

## **Applications of SAT/SMT solvers:**

- In timetabling
- In software verification
- For CSP problems
- Novel specification language (that uses SAT/SMT solvers) is under development

## **Geometry reasoning:**

- Dynamic geometry tool GCLC with integrated three theorem provers, based on:
  - area method
  - Wu's method
  - Gröbner bases method
- Theorem prover based on coherent logic under development (with formal proofs exported)

We organized two successful workshops recently:

- Workshop on formal theorem proving and applications (Belgrade, 2008)
- Workshop on formal and automated theorem proving and applications (Belgrade, 2009)
- Workshop 2010 planned for end of January 2010 you will be welcome!