

*Summer lectures in Artificial Intelligence*

**Speaker:** Prof. Torsten Schaub, University of Potsdam, DE

**Title:** Theory solving made easy with clingo

**Abstract:** Answer Set Programming (ASP) is a model, ground, and solve paradigm. The integration of application- or theory-specific reasoning into ASP systems thus impacts on many if not all elements of its work-flow, viz., input language, grounding, intermediate language, solving, and output format. We address this challenge with the fifth generation of the ASP system clingo and its grounding and solving components by equipping them with well-defined generic interfaces facilitating the manifold integration efforts. On the grounder's side, we introduce a generic way of specifying language extensions and propose an intermediate format accommodating their ground representation. At the solver end, this is accompanied by high- and mid-level foreign language interfaces easing the integration of theory propagators dealing with these extensions.

**Short Biography:** Torsten Schaub is university professor at the University of Potsdam, Germany, and holds an international chair at Inria Rennes, France. He is a fellow of ECCAI and the current president of the Association of Logic Programming.

His current research focus lies on Answer set programming (ASP) and its applications, which materializes at [potassco.sourceforge.net](http://potassco.sourceforge.net), the home of the open source project Potassco bundling software for ASP developed at Potsdam.

Date  
June, 13, 2016

Time  
11:00

Room  
MT10-CUBO 30B