Generalized Planning

August 8th 2011, San Francisco, USA

Program Committee

Eyal Amir Jorge Baier Chitta Baral Adi Botea Amanda Coles Christian Fritz Hector Geffner Robert Goldman Subbarao Kambhampati Roni Khardon Gerhard Lakemeyer Karen Myers Bernhard Nebel Sebastian Sardina Manuela Veloso The goal of this workshop is to explore ways of increasing the scope and scalability of automated planning by constructing and utilizing plans with rich representations and control structures. We plan to bring together researchers interested in new action and plan representations, as well as in synthesis, learning and analysis of plans. This workshop follows the very successful GenPlan09 workshop that was held in conjunction with ICAPS in 2009.

An additional objective of this workshop is to foster a greater exchange of ideas between the many distinct yet related subfields of AI that these problems are connected with, including knowledge representation, abstraction, learning, inductive logic programming, hierarchical decision making paradigms such as partial policies and HTNs, program synthesis, automated service composition, as well as model checking in AI, in addition to the various forms of automated planning.

Some of the fundamental questions motivating this workshop are:

- How can we effectively find, represent and utilize high-level knowledge about planning domains?
- · What separates planning problems from software synthesis and composition problems?
- What are the computational limits to the feasibility of these problems?
- How can advances in model checking and abstraction techniques be utilized towards solving these problems?

Important Dates

Submission Apr 22nd
Notification May 13th

Final Versions May 27th

Topics

Potential topics include but are not limited to:

- · generating plans with loops
- · generating parametrized plans
- instantiating parametrized plans
- evaluation of generalized plans
- learning macro actions
- reasoning and planning with complex actions
- · learning and planning with domain control knowledge
- learning and planning with partial policies
- automated service composition
- plan verification
- model checking and abstraction for planning
- program synthesis
- generating robust or partial schedules

Organizing Committee

Sheila McIlraith *University of Toronto*

Siddharth Srivastava (Chair) University of Massachusetts

Paolo Traverso FBK, Center for Information Technology

Shlomo Zilberstein
University of Massachusetts

Workshop Format and Paper Submission

The workshop program will include technical presentations, discussion session(s), and a poster session, depending on the participation. We will also have invited talks by three prominent researchers: Alessandro Cimatti, Hector Levesque and Stuart Russell.

We invite technical papers (up to 8 pages), extended abstracts (up to 2 pages) and papers with clear formulations of open problems and potential approaches (up to 4 pages). We invite submissions including works in progress and mature work that may have been published at other research venues. Submission of previously published work may be in the form of a resubmission of a recent paper, or a position/survey paper that overviews and cites a body of work.

Paper submissions should be in PDF format and typeset in the AAAI style. Paper submissions and queries should be emailed to Siddharth Srivastava [siddharth@cs.umass.edu] with "GenPlan11" in the subject.

If accepted, at least one of the authors will have to register and attend the workshop. AAAI-11 student volunteers will be given complimentary technical registrations.



http://rbr.cs.umass.edu/GenPlan11/