

Scheduling and Planning Applications woRKshop (SPARK)

Organizers: Gabriella Cortellessa, Minh Do, Riccardo Rasconi, Neil Yorke-Smith
Date and Location: June 13, 2011, Hall 101-00-036 Computer Science Campus

Invited Talk

Luis Castillo Vidal

Lessons Learned Empowering Smart Applications with Planning Technology

Few people would disagree with the success stories of deploying real world planning applications. In this talk we describe the pitfalls we have found since we founded IActive Intelligent Technologies in 2006. IActive specializes in introducing planning technology into existing applications to give them additional decision support capabilities, with tangible and measurable added value. In this talk we discuss the "good" and "not so good" decisions from IActive's experiences.

Schedule

09:00-09:10		Welcome and Introduction
		Invited Talk
09:10-10:00		<i>Lessons Learned Empowering Smart Applications with Planning Technology</i> Luis Castillo Vidal
		P&S Under Uncertainty & Execution
10:00-10:15		<i>Planning and Replanning for a Constellation of Agile Earth Observation Satellites</i> Romain Grasset-Bourdel, Gérard Verfaillie, Antoine Flipo
10:15-10:30		<i>Opening the PANDORA-BOX: Planning and Executing Timelines in a Learning Environment</i> Amedeo Cesta, Gabriella Cortellessa, Riccardo De Benedictis, Keith Strickland
		Coffee Break
		P&S Under Uncertainty & Execution cont'd
11:00-11:25		<i>Dynamic Management of Paratransit Vehicle Schedules</i> Zachary Rubinstein, Stephen Smith
11:25-11:50		<i>The Emergency Landing Planner Experiment</i> Nicolas Meuleau, Christian Neukom, Christian Plaunt, David Smith, Tristan Smith
11:50-12:15		<i>Scheduling a Dynamic Aircraft Repair Shop</i> Maliheh Aramon Bajestani, J. Christopher Beck
12:15-12:30		Commentary and Discussion
		Lunch Break

Novel Domains for P&S

- 14:00–14:25 *Diagnosis As Planning: Two Case Studies*
Patrik Haslum, Alban Grastien
- 14:25–14:40 *Computing Genome Edit Distances using Domain-Independent Planning*
Patrik Haslum
- 14:40–15:05 *Planning for Human-Robot Teaming*
Kartik Talamadupula, Subbarao Kambhampati, Paul Schermerhorn,
J. Benton, Matthias Scheutz
- 15:05–15:20 *Temporal Planning for Co-Design of Host Scheduling and
Workflow Allocation in Mobile Environments*
Qiang Lu, Yixin Chen, Mart Haitjema, Catalin Roman, Christopher Gill, Guoliang Chen
- 15:20–15:30 Commentary and Discussion

Coffee Break

Emerging Applications for P&S

- 16:00–16:15 *The MMP: A Mixed-Initiative Mission Planning System for the Multi-Aircraft Domain*
Ruben Strenzke, Axel Schulte
- 16:15–16:30 *Temporal Optimization Planning for Fleet Repositioning*
Kevin Tierney, Rune Møller Jensen
- 16:30–16:45 *Knowledge Representations for High-level and Low-level Planning*
Franziska Zacharias, Christoph Borst
- 16:45–17:05 *Command and Control Training Centers:
Computer Generated Forces Meet Classical Planning*
Carmel Domshlak, Ziv Even-Zur, Yannai Golany, Erez Karpas, Yevgeni Nus
- 17:05–17:15 Commentary and Discussion

Final Discussion and Closing Remarks