Time	Schedule
9:00am – 10:00am	**Maria Gini** **Voice activated intelligent personal assistants: challenges and opportunities** The advent of inexpensive voice activated devices (Amazon Echo, Google Home) is opening up new unprecedented opportunities to create personal assistants or a variety of applications and populations. The use of voice is specially promising to enable people with sensory deprivation (e.g., blind users), limited motor control, or mild memory impairments to have a continuously present assistant for many of their daily needs. However, the state of the art of the software for such devices is far from being able to provide intelligent and personalizable assistance. In this talk we will explore open challenges and opportunities.
10:00am – 10:30am	**Session 1** - Wookhee Min, Bradford Mott, Jonathan Rowe, Pengcheng Wang and James Lester. *Robust Goal Recognition in Open-World Games with Generative Adversarial Networks.* - Robert Goldman, Scott Friedman and Jeffrey Rye. *Plan Recognition for Network Analysis: Preliminary Report.*
10:30am - 11:00am	Break
11:00am – 11:30am	**Poster session** - Biswa Sengputa, Yu Qian. *Pillar Networks++: Distributed non-parametric deep and wide networks.* - Virin Tamprateep and Peter Stone. *Of Mice and Mazes: Simulating Mice Behavior with Reinforcement Learning*. - Anirban Santara, Abhishek Naik, Balaraman Ravindran, Dipankar Das, Sasikanth Avancha, Dheevatsa Mudigere and Bharat Kaul. *RAIL: Risk-Averse Imitation Learning.* - Yue Peng, Edward Huang, Gang Chen, Wang Chongjun and Junyuan Xie. *A general framework for multi-label learning towards class-correlations and class-imbalance.*
11:30am- 12:30pm	**Session 2** - Sarah Keren, Avigdor Gal and Erez Karpas. *Strong Stubborn Sets for Efficient Goal Recognition Design.* - Ramon Fraga Pereira and Felipe Meneguzzi. *Goal Recognition in Incomplete STRIPS Domain Models.* - Richard Freedman, Yi Fung, Roman Ganchin and Shlomo Zilberstein. *Towards Quicker Probabilistic Recognition with Multiple Goal Heuristic Search.* - Mor Vered, Ramon Fraga Pereira, Maurício Cecílio Magnaguagno, Felipe Meneguzzi and Gal Kaminka. *Online Goal Recognition as Reasoning over Landmarks.*
12:30pm - 2:00pm	Lunch
2:00pm – 3:00pm	**Shirin Sohrabi** **Plan Recognition as Planning : Theory and Practice** In this talk I will give an overview of our work at IBM Research in applying plan recognition as planning techniques in several applications. I will discuss both the theory and the practical challenges as well as the results and the lessons learned. The talk will focus on the IBM Scenario Planning Advisor (SPA) tool, which is a decision support system that utilizes plan recognition as planning techniques to assist financial organizations in identifying and managing emerging risks.

3:00pm – 3:30pm	**Session 3** - Yu-Sian Jiang, Garrett Warnell and Peter Stone. *A Robust Method for Inferring User Intention in a Dynamic Environment using Gaze.* - David Pynadath and Ning Wang. *A Nearest-Neighbor Approach to Recognizing Mental States in Human-Robot Interaction.*
3:30pm - 4:00pm	Break
4:00pm – 5:00pm	**Session 4** - Roman Barták, Rafael C. Cardoso and Adrien Maillard. *Validation of Hierarchical Plans via Parsing of Attribute Grammars.* - Reuth Mirsky, Ran Galun, Kobi Gal, Gal Kaminka. *Comparing Plan Recognition Algorithms through Standard Libraries.* - Yunxiu Zeng, Kai Xu, Quanjun Yin, Long Qin, Yabing Zha and William Yeoh. *Inverse Reinforcement Learning based Human Behavior Modeling for Goal Recognition in Dynamic Local Network Interdiction.* - Daniel Höller, Gregor Behnke, Pascal Bercher and Susanne Biundo. *Plan and Goal Recognition as HTN Planning*.
5:00pm-6:00pm	**Philip Cohen** **Steps Towards Collaborative Dialogue** Dialogue is all the rage nowadays. Most of the approaches currently receiving attention involve deep learning of stimulus-response pairs, or various machine-learned strategies for simple "slot-filling" dialogues in which a system acquires information sufficient to enable it to perform a single action. In this talk, I will argue that these approaches are too simplistic and will not extend to realistic dialogues. In particular, as currently pursued, they will not support dialogues with intelligent systems that can collaborate with their users to help accomplish the user's goals. The talk begins with a discussion of collaboration, which revolves around plan recognition skills learned as a child. Such deeply engrained collaboration strategies will be seen to be at the foundation of dialogue and are expected by human interlocutors. The approach I will advocate to implementing collaborative dialogue systems is to build a (joint) belief-desire- intention architecture that attempts to recognize the user's plans, and determines obstacles to their success. The system then plans and executes a response intended to overcome those obstacles. In so doing, the system needs to reason about, and may plan to alter, users' mental states thereby resulting in speech acts. I will demonstrate a system that embodies this type of collaboration, engaging the user in dialogue about travel planning. Importantly, because the system is driven by plans, it is explainable, and thus able to answer "why" questions. The upshot of this approach is a system that assists its users, and knows what it is doing/saying.