

# ICMI 2014 Workshop

## Understanding and Modeling Multiparty, Multimodal Interactions

16 November 2014, Bogazici University, Istanbul, Turkey

### Organizers

**Samer Al Moubayed**  
Disney Research,  
Pittsburgh, USA

**Dan Bohus**  
Microsoft Research,  
Redmond, WA, USA

**Anna Esposito**  
Second University of Naples  
& IIASS, Italy

**Dirk Heylen**  
University of Twente,  
The Netherlands

**Maria Koutsombogera**  
ILSP/ Athena R.C., Greece

**Harris Papageorgiou**  
ILSP/ Athena R.C., Greece

**Gabriel Skantze**  
KTH Royal Institute of  
Technology, Sweden

### Goals

Analysis and understanding of human-human conversations has stressed the importance of modeling all available verbal and non-verbal signals occurring in conversations to develop human-machine interfaces that are capable of interpreting multimodal communicative signals as well as generating natural and synchronized responses. While the focus of research has been primarily to dyadic interactions, multiparty interactions as communicative setups involving more than two participants are a complex, yet challenging construct that merits attention.

Understanding and modelling the multiparty configuration and the underlying affective and social behavior of the participants address the design of interfaces that (a) can follow and participate in the conversation, (b) present interactional skills to control the interaction flow, (c) respond to it in the appropriate timing and as naturally as possible, (d) keep track of the multimodal conversation of the participants as well as (e) guarantee a high and balanced level of involvement between them. Related applications, such as socially aware and affective spoken dialogue systems and social robots, aim at stimulating natural, fluent and spontaneous spoken behavior from the users and decode the multimodal signals providing significant information about the participants' state and verbal actions.

This workshop aims to explore this growing area of multiparty multimodal interaction by bridging this multidisciplinary area and bringing together researchers from domains of multimodal signal processing, dialog systems, human-computer interaction, human-robot interaction, multimodal conversation analysis and multimodal user interfaces.

### Important Dates

Paper submission due:  
July 5<sup>th</sup>, 2014

Notification of acceptance:  
August 5<sup>th</sup>, 2014

Camera-ready due:  
September 5<sup>th</sup>, 2014

Workshop Date:  
November 16<sup>th</sup>, 2014

For further information visit:  
<http://ummmi.ilsp.gr/>

### Topics include, but are not limited to:

- Models of multimodal & multiparty human-human, human-computer, human-robot interaction.
- Multiparty and multimodal dialogue modeling and systems.
- Modeling engagement in multiparty interactions.
- Modeling group/social relationships and dynamics.
- Models of multiparty collaboration.
- Design principles and best practices in human-machine interfaces tackling multiple modalities in multiparty interaction.
- Evaluation methodologies for multiparty interactions.
- Multiparty and multimodal turn-taking models.
- Multi-human & multi-machine models of multiparty interaction.
- Creating resources of multimodal & multiparty interactions (data capturing, corpus annotation, etc.).
- Multimodal social and affective aspects in multiparty interaction.

### Submission

Prospective authors are invited to submit original and unpublished full papers (up to 6 pages) through [EasyChair](#). Submitted papers should conform to the ACM [format specifications](#). The accepted papers will be published in the conference proceedings and on ACM Digital Library.

