

# IVA 2010

Philadelphia, Pennsylvania, USA

20-22 September 2010

## 10<sup>th</sup> International Conference on Intelligent Virtual Agents

### The Conference

Intelligent virtual agents (IVAs) are interactive characters that exhibit human-like qualities and communicate with humans or with each other using natural human modalities such as behavior, gesture and speech. IVAs are capable of real-time perception, cognition and action that allow them to participate in a dynamic social environment.

IVA-2010 is an interdisciplinary annual conference and the main forum for presenting research on modeling, developing and evaluating intelligent virtual agents with a focus on communicative abilities and social behavior. The conference encourages a spectrum of presentations from theoretical issues to working applications. Research on human-human and human-robot interaction adapted to intelligent embodied agents is also welcome.

### Special topic: Virtual Human Communities

IVA-2010 particularly encourages submissions on this year's special topics of *virtual human communities*. IVA achievements to date lead naturally to studies involving the formation, simulation and understanding of ever widening social, cultural and cognitive interactions among humans and virtual humans. Computer graphics techniques now permit the visual simulation of large collections of individual agents, offering real-time visualization platforms for expanding social units to families, co-worker teams, building inhabitants and even an entire virtual populace. Mobile interactive devices and emergent human interests in real-time social networking provide some additional economic incentives and a growing industry presence. This special topic also builds on the special theme of IVA 09, games, in that participants in virtual environments will need to interact not just with the space or with individual IVAs, but perhaps with a community of IVAs in order to achieve desired situations or goal states. IVA 2010 offers the opportunity for further interdisciplinary cross-fertilization between the IVA and virtual populace simulation fields.

### Submission details

Prospective authors are invited to submit full papers (10-14 pages), short papers (6-7 pages), or poster papers (1-2 pages) in Springer Lecture Notes in Computer Science (LNCS) format. For details on how to submit your paper, consult the IVA 2010 website: <http://iva2010.org>

### GALA 2010

The Gathering of Animated Lifelike Agents (GALA) will once again take place at IVA; please visit the website <http://iva2010.org/gala>

### Chairs

Norman Badler: University of Pennsylvania, USA  
Catherine Pelachaud: CNRS, Télécom ParisTech, France  
Jan Allbeck: George Mason University, USA  
Timothy Bickmore: Northeastern University, USA

### Important Dates

15 April 2010: Paper submission deadline  
1 June 2010: Notification of acceptance  
15 June 2010: Camera-ready copies  
1 June 2010: GALA submission  
20-22 September 2010: Conference!

### Topics

#### Design and modeling of IVAs

- design criteria and design methodologies
- evaluation methodologies and user studies
- ethical considerations and social impact
- applicable lessons from other fields (e.g. robotics)
- dimensions of intelligence, cognition and behavior
- models of personality and cultural awareness
- models of social competence
- models of multimodal perception and action
- models of emotional communicative behavior

#### Implementation of IVAs

- software engineering issues
- real-time integrated systems
- portability and reuse
- standards / measures to support interoperability
- specialized tools, toolkits and tool chains
- specialized modeling and animation technologies

#### Applications of IVAs

- future role and/or current experience in various fields, e.g., computer games, art and entertainment, education and training, simulation and visualization
- delivery platforms: desktop, single/multi-user, virtual/augmented/mixed reality

#### Conceptual frameworks for IVAs

- learned, evolved or emergent behavior
- improvisational or dramatic interaction
- stages of autonomy (from avatars to agents)

#### Virtual human communities

- virtual populace simulation
- authoring tools
- cultural models
- spatiotemporal data

### Best Paper Chair

Stacy Marsella, Univ. of Southern California, USA

### Submissions Chair

Alla Safonova, University of Pennsylvania, USA

### Poster and Demo Chairs

Chris Czyzewicz, University of Pennsylvania, USA  
Daniel Schulman, Northeastern University, USA

### Local Organization Chair

Catherine Stocker, University of Pennsylvania, USA

### Senior Program Committee

Elisabeth Andre, University of Augsburg, Germany  
Ruth Aylett, Heriot-Watt University, UK  
Marc Cavazza, University of Teesside, UK  
Stephane Donikian, IRISA, France  
Stefan Kopp, Bielefeld University, Germany  
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Mark Riedl, Georgia Institute of Technology, USA  
Thomas Rist, University of Augsburg, Germany  
Zsafia Ruttkay, University of Twente, The Netherlands  
Hannes Vilhjálmsson, Reykjavík University, Iceland

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