



# APHRODITE

Adaptive behavioral models of robotic systems based on brain-inspired AI cognitive architectures.

## WORKSHOP PROGRAM

August 31th, 2020

Virtual workshop, IEEE Ro-Man Conference

Register  
[here](#)

**9.30 – 9.45 Welcome & Introduction**, Dr. Laura Fiorini, The Biorobotics Institute, Scuola Superiore Sant'Anna

**9.45 – 10.15** "From social and cognitive neuroscience to human-robot interaction", Prof. Agnieszka Wykowska, Italian Institute of Technology, Italy.

**10.15 – 10.45** "Intention Sharing and Semantic Hierarchy in the Human-Robot Communication for Working Cooperatively: A Brain-Inspired Engineering Framework for Logical Reasoning", Prof. Hiroaki Wagatsuma, Kyushu Institute of Technology, Japan.

**10.45 – 10.55 Questions & Answers**

**10.55 – 11.00 Break**

### Session 1: Author Presentation

(chairs: Dr. Gabriella Cortellessa, Dr. João Quintas)

**11.00 – 11.10** "Shared-Control, Shared-Autonomy and Shared-Intelligence in Assistive Technologies: Three forms of Cooperation between User and Robot", Gloria Beraldo, University of Padova & CNR-ISTC, Italy

**11.10 – 11.20** "The Future of robotic Platforms for Gait Rehabilitation", Prof. Artur Serrano, NTNU Norwegian University of Science and Technology, Norway

**11.20 – 11.30** "Integrating service robots, IoT, Virtual Communities and Smart Objects to serve independently living elders: on-field trial", Prof. Alberto Borghese, Università di Milano, Italy

**11.30 – 11.40** "Robot-mediated assessment of body posture, gait parameters and hand grip strength during the 10m walking test", Alessandra Sorrentino, The BioRobotics Institute, Scuola Superiore Sant'Anna, Italy.

**11.40 – 11.50** "State of the art on thermal IR imaging based affective computing for infant robot interaction", Chiara Filippini, Institute for Advanced Biomedical Technologies, Università G. D'Annunzio, Italy.

**11.50 – 12.00 Break**

### Session 2: Author Presentation

(Chairs: Prof. Artur Serrano, Prof. Filippo Cavallo)

**12.00 – 12.10** "Gender Identification in a Two-Level Hierarchical Speech Emotion Recognition System for an Italian Social Robot", Antonio Guerrieri, Fondazione Neurone Onlus, Italy.

**12.10 – 12.20** "Do we need to update the uncanny valley theory after 50 years?", Dr. Giovanni Ferrin, Department of Mathematics, Computer Science and Physics, University of Udine, Italy.

**12.30 – 12.40** "A short Review on Architectures for Artificial Social Companions", Dr. João Quintas, Instituto Pedro Nunes, Coimbra, Portugal.

**12.40 – 12.50** "Engaging older adults' need, wishes and fears of social robotis through participatory design", Dr. Roger A. Søråa, NTNU Norwegian University of Science and Technology, Norway.

**12.50 – 13.00** "A Mind-inspired Architecture for Adaptive HRI in Assistive Tasks", Dr. Alessandro Umbrico, Institute for Cognitive Science and Technology, National Research Council, Italy

**13.00 – 13.10 Wrap up & Conclusion**

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