ROME
10TH MARCH
2025

LABORIUS

AI-POWERED COLLABORATIVE ROBOTS
FOR GAIT AND BALANCE ENHANCEMENT

SCIENTIFIC COMMITTEE
MARIANO SERRAO
ALBERTO RANAVOLO

SCIENTIFIC COMMITTEE

Mariano Serrao, Roma
Alberto Ranavolo, Roma

FACULTY

Arash Ajoudani, Genova
Stefano Filippo Castiglia, Roma
Giorgia Chini, Roma
Younggeoul Cho, Genova
Cristiano De Marchis, Messina
Andrea Fortuna, Genova
Irene Gennarelli, Genova
Yuri Ivanenko, Roma
Francesco Lacquaniti, Roma
Niki Martinel, Udine
Dante Trabassi, Roma
Tiwana Varrecchia, Roma
Ilg Wienfried, Tűbigen (Germania)
Myrka Zago, Roma

PROGRAM

09.00   Participant registration

Opening of the event

Chairman: Mariano Serrao, Alberto Ranavolo

09.30   **Designing and developing collaborative robots for gait and balance assistance: human-robot interaction, from MOCA to Laborius to WANDER and beyond**
Arash Ajoudani, Younggeoul Cho

09.50   **Human-human interaction during walking**
Yuri Ivanenko, Francesco Lacquaniti

10.10   **Enhancement of vestibular motion perception for balance rehabilitation**
Myrka Zago, Francesco Lacquaniti

10.30   **Extrapolated center of mass as metric to assess dynamic balance during walking**
Andrea Fortuna

10.50   **Gait and balance analysis through wearable devices: kinematic biomarkers and metrics**
Ilg Wienfried, Stefano Filippo Castiglia

11.10   Coffee break

Chairman: Cristiano De Marchis

12.00   **Computer Vision Approach for motion analysis**
Niki Martinel, Irene Gennarelli

12.40   **Generative AI approach for motion analysis**
Dante Trabassi

13.20   **Indexes and AI algorithms for motor performance assessment in job integration/reintegration programs designed using collaborative robots**
Tiwana Varrecchia, Giorgia Chini

14.00   Lunch

GENERAL INFORMATION

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REGISTRATION
Reserved and free for the first 50 learners
Contact the organizing office at the congressi1@pentaeventi.com

REGISTRATION INCLUDES
• Access to the scientific sessions
• Conference kit
• Certificate of attendance
• ECM Certificate for those entitled
(downloadable from formazione.pentaeventi.com)

CME INFORMATION

PROVIDER: PENTA EVENTI SRL

CATEGORIES:
• Medical Doctor
• Medical Radiology Technician
• Physiotherapist
• Neurophysiopathology technician
• Therapist for Neuro- and Psychomotor Development in Childhood

DISCIPLINES FOR MEDICAL DOCTORS:
• Physical medicine and rehabilitation
• Neurology
• Orthopaedics and Traumatology
• Radiodiagnostics

CME CERTIFICATE
CME credits shall be issued subject to:
• Participation in the training event
(at least 90% of the scheduled hours)
• Completion of the questionnaire regarding Perceived Quality
• Successful learning test (at least 75% correct answers)

The learner can take the CME test within 72 hours after the end of the event; he/she will have only one attempt to pass the test.

Please note that the maximum limit of training credits attributed to the three-year reference period that can be acquired through direct recruitment is 1/3.

CERTIFICATE OF PARTICIPATION
All registered participants are entitled to a certificate of participation.

ORGANIZING SECRETARIAT AND PROVIDER N° 3875

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