

# Scientific Program

<b>Wednesday 15<sup>th</sup> June</b>	
8,30 – 10,30	registration
10,15 – 11,15	<b>tutorial 1</b>
11,15 – 11,45	coffee break
11,45 – 12,45	<b>tutorial 2</b>
14,30 – 15,00	opening ceremony
15,00 – 16,00	keynote speaker 1 <b>Stefano Baldassi</b>
16,00 - 16,15	coffee break
16, 15 – 17,45	session 1 <b>Virtual Reality</b>

<b>Friday 17<sup>th</sup> June</b>	
9,00 – 10,00	keynote speaker 4 <b>Matteo Dellepiane</b>
10,00 – 11, 00	session 6 <b>Applications of VR/AR in Cultural Heritage</b>
11,00 – 11,30	coffee break
11,30 – 12,30	session 7 <b>Applications of VR/AR in Cultural Heritage</b>
12,30 – 13,00	<b>demo/company space</b>
14,30 – 15,30	session 8 <b>Human-Computer Interaction</b>
15,30 – 15,45	coffee break
15,45 – 16,45	session 9 <b>Human-Computer Interaction</b>
16,45 – 18,00	<b>demo/company space</b>

<b>Thursday 16<sup>th</sup> June</b>	
9,00 – 10,00	keynote speaker 2 <b>Leo Joskowicz</b>
10,00 – 11,00	session 2 <b>Virtual Reality</b>
11,00 – 11,30	coffee break
11,30 – 12,45	session 3 <b>Applications of VR/AR in Medicine</b>
14,30 – 15,30	keynote speaker 3 <b>Antonio Emmanuele Uva</b>
15,30 – 16,30	session 4 <b>Augmented and Mixed Reality</b>
16,30 – 16,45	coffee break
16,45 – 18,00	session 5 <b>Augmented and Mixed Reality</b>

<b>Saturday 18<sup>th</sup> June</b>	
9,00 – 10,15	<b>poster session 1</b>
10,15 – 10, 30	coffee break
10,30 – 11,45	<b>poster session 2</b>
11,45 – 12,00	closing ceremony
12,00 – 13,00	<b>poster exhibition</b>

**Wednesday 15<sup>th</sup> June**

## **Tutorial 1**

### **Stereoscopic 3D Visualization to Enhance Presence and Teleoperation**

*Salvatore Livatino, University of Hertfordshire, U.K.*

## **Tutorial 2**

## **Keynote Speaker 1**

### **STEFANO BALDASSI - Meta Company, California, USA**

*From science to production: researching Augmented Reality while we build it*

## **Session 1 – Virtual Reality**

<b>ID</b>	<b>Title</b>	<b>Authors</b>
1140	Simulation of Tsunami impact upon Coastline	Aristotelis Spathis-Papadiotis, Konstantinos Moustakas
1141	Design and Implementation of a Low Cost Virtual Rugby Decision Making Interactive	Alan Cummins, Cathy Craig.
1243	Methodology for Efficiency Analysis of VR Environments for Industrial Applications	Jana Dücker, Polina Häfner, Jivka Ovtcharova
1338	The Effect of Emotional Narrative Virtual Environments on User Experience	Claudia Faita, Camilla Tanca, Andrea Piarulli, Marcello Carrozzino, Franco Tecchia, Massimo Bergamasco
1151	Immersive Virtual Reality-based Simulation to Support the Design of Natural Human-Robot Interfaces for Service Robotic Applications	Federica Bazzano, Federico Gentilini, Fabrizio Lamberti, Andrea Sanna, Gianluca Paravati, Valentina Gatteschi, Marco Gaspardone
1287	Unity3D-MatLab Simulator in Real Time for Robotics Applications	Victor Hugo Andaluz, Fernando A. Chicaiza, Cristian Gallardo, Washington X. Quevedo, José Varela, Jorge S. Sanchez, Oscar Arteaga

## Thursday 16<sup>th</sup> June

### Keynote Speaker 2

**LEO JOSKOWICZ - University of Jerusalem, Israel**

*Digital Models from Medical Images: from the Lab to the Clinic*

### Session 2 – Virtual Reality

ID	Title	Authors
1335	A scalable Cluster-Rendering Architecture for Immersive Virtual Environments	Giovanni Avveduto, Franco Tecchia, Marcello Carrozzino, Massimo Bergamasco
1186	Multi-Resolution Visualisation of Geographic Network Traffic	Berkay Kaya, Selim Balcisoy
1293	Unity3D Virtual Animation of Robots with Coupled and Uncoupled Mechanism	Victor Hugo Andaluz, Jorge S. Sanchez, Jonnathan I. Chamba, Paul P. Romero, Fernando A. Chicaiza, José Varela, Washington X. Quevedo, Cristian Gallardo, Luis F. Cepeda
1348	Modeling of complex taxonomy: a framework for schema-driven exploratory portal	Luca Mainetti, Roberto Paiano, Stefania Pasanisi, Roberto Vergallo

### Session 3 – Applications of VR/AR in Medicine

ID	Title	Authors
1105	A Novel Tabletop and Tablet-Based Display System to Support Learner-Centric Ophthalmic Anatomy Education	R. Codd-Downey, R. Shewaga, B. Kapralos, A. Uribe-Quevedo, K. Kanev, and M. Jenkin
1142	Using a short video animation to assist with the diagnosis of sleep disorders in young children	Blanca Guinea, Mario Alaguero, Fernando Melgosa, Andres Bustillo
1149	Configurable Software Framework for 2D/3D Video See-Through Displays in Medical Applications	Fabrizio Cutolo, Mentore Siesto, Stefano Mascioli, Cinzia Freschi, Mauro Ferrari, Vincenzo Ferrari
1150	Application of a New Wearable Augmented Reality Video See-Through Display to Aid Percutaneous Procedures in Spine Surgery	Fabrizio Cutolo, Marina Carbone, Paolo D. Parchi, Vincenzo Ferrari, Michele Lisanti, Mauro Ferrari
1332	Development of a Virtual Simulator for Microanastomosis: New Opportunities and Challenges	Valerio De Luca, Antonio Meo, Antonio Mongelli, Pietro Vecchio, Lucio Tommaso De Paolis

### Keynote Speaker 3

**ANTONIO EMMANUELE UVA - Polytechnic Institute of Bari, Italy**

*Text Legibility Issues in Industrial Augmented Reality*

### Session 4 – Augmented and Mixed Reality

ID	Title	Authors
1104	Mobile Augmented Reality based Annotation System: A Cyber-Physical Human System	Constantin Scheuermann, Felix Meissgeier, Bernd Bruegge, and Stephan Verclas
1139	A Framework for Outdoor Mobile Augmented Reality and its Application to Mountain Peak Detection	Roman Fedorov, Darian Frajberg, Piero Fraternali
1154	Augmented Industrial Maintenance (AIM): a case study for evaluating and comparing with paper and video media supports	Vincent Havard, David Baudry, Xavier Savatier, Benoit Jeanne, Anne Louis, Bélahcène Mazari
1167	Augmented Reality in the Control Tower: a Rendering Pipeline for Multiple Head-Tracked Head-Up Displays	Nicola Masotti, Francesca De Crescenzo, Sara Bagassi

### Session 5 – Augmented and Mixed Reality

ID	Title	Authors
1285	CoCo, A framework for multicore visuo-haptic in mixed reality	Emanuele Ruffaldi, Filippo Brizzi
1289	Cloud Computing Services for Real Time Bilateral Communication, Applied to Robotic Arms	Cristian Gallardo, Victor Hugo Andaluz
1328	Design of a projective AR workbench for manual working stations	Antonio Emmanuele Uva, Michele Fiorentino, Michele Gattullo, Marco Colaprico, Francescomaria Marino, Gianpaolo F. Trotta, Vito M. Manghisi, Antonio Boccaccio, Vitoantonio Bevilacqua, Giuseppe Monno
1342	A Taxonomy for Information Linking in Augmented Reality	Tobias Müller, Ralf Dauenhauer
1238	An Efficient Geometric Approach for Occlusion Handling in Outdoors Augmented Reality Applications	Vlasios Kasapakis, Damianos Gavalas, Panagiotis Galatis

## Friday 17<sup>th</sup> June

### Keynote Speaker 4

**MATTEO DELLEPIANE - ISTI-CNR, Pisa, Italy**

*3D acquisition today: all's well that ends well?*

### Session 6 – Applications of VR/AR in Cultural Heritage

ID	Title	Authors
1137	Interactive Painting and Lighting in Dynamic Multi-Projection Mapping	Vanessa Lange, Christian Siegl, Matteo Colaianni, Philipp Kurth, Marc Stamminger, Frank Bauer
1156	Briviesca in the 15th c.: a virtual reality environment for teaching purposes	David Checa, Mario Alaguero, Miguel A. Arnaiz, Andres Bustillo
1227	VR for Cultural Heritage. A VR-WEB-BIM for the Future Maintenance of Milan's Cathedral	Francesco Fassi, Alessandro Mandelli, Simone Teruggi, Fabrizio Rechichi, Fausta Fiorillo, Cristiana Achille
1233	A virtual experience across the buried history	Antonina Canzoneri, Gaia Pavoni, Marco Callieri, Matteo Dellepiane, Paolo Pingi, Manuela De Giorgi, Roberto Scopigno

### Session 7 – Applications VR/AR in Cultural Heritage

ID	Title	Authors
1242	Cyberarchaeology: improved way findings for archaeological parks through mobile augmented reality	Roberto Pierdicca, Emanuele Frontoni, Primo Zingaretti, Eva Savina Malinverni, Andrea Galli, Ernesto Marcheggiani, Carlos Smaniotto Costa
1271	Augmenting Smart Objects for Cultural Heritage: a usability experiment	Marco Romano, Paloma Diaz, Ignacio Aedo, Pierpaolo D'Agostino
1330	Santo Stefano in Soletto (Lecce, Italy): the presentation of heterogeneous data using hybrid platform	Francesco Gabellone, Ivan Ferrari, Francesco Giuri, Paola Durante, Sofia Giammaruco
1241	Automatic Analysis of Eye-Tracking Data for Augmented Reality Applications: A Prospective Outlook	Simona Naspetti, Roberto Pierdicca, Serena Mandolesi, Marina Paolanti, Emanuele Frontoni, Raffaele Zanolli

## Session 8 – Human-Computer Interaction

ID	Title	Authors
1264	Natural Interaction with 3D Content on Mobile AR Systems using Gesture Recognition	Victor Kyriazakos, Georgios Nikolakis, Konstantinos Moustakas
1121	Developing Touch-less Interfaces to Interact with 3D Contents in Public Exhibitions	Andrea Sanna, Fabrizio Lamberti, Federica Bazzano, Luigi Maggio
1196	A User Study on Touch Interaction for User-Perspective Rendering in Hand-Held Video See-Through Augmented Reality	Ali Samini, Karljohan Lundin Palmerius
1267	An Investigation of Leap Motion Based 3D Manipulation Techniques for Use in Egocentric Viewpoint	Giuseppe Caggianese, Luigi Gallo, Pietro Neroni

## Session 9 – Human-Computer Interaction

ID	Title	Authors
1272	PaSt: human tracking and gestures recognition for flexible virtual environments management	Dario Di Mauro, Davide Maria Calandra, Antonio Origlia, Francesco Cutugno
1255	Development of innovative HMI strategies for eye controlled wheelchairs in Virtual Reality	Luca Maule, Alberto Fornaser, Malvina Leuci, Nicola Conci, Mauro Da Lio, Mariolino De Cecco
1333	An Immersive VR Experience to Learn the Craft of Printmaking	Marcello Carrozzino, Cristian Lorenzini, Mihai Duguleana, Chiara Evangelista, Raffaello Brondi, Franco Tecchia, Massimo Bergamasco
1189	Challenges in the Effectiveness of Image Tagging Using Consumer-Grade Brain-Computer Interfaces	Christopher Bellman, Ruba AlOmari, Albert Fung, Miguel Vargas Martin, Ramiro Liscano

## Saturday 18<sup>th</sup> June

### Poster Session 1

ID	Title	Authors
1116	Immersive Learning Environment for Visual Arts	Leith K. Y. Chan, Kit Sum Geran Yuen, Henry Y. K. Lau
1125	Mobile User Experience in Augmented Reality vs Maps Interfaces: A Case Study in Public Transportation	Manousos Kamilakis, Damianos Gavalas, Christos Zaroliagis
1132	GazeAR: Mobile Gaze-Based Interaction in the Context of Augmented Reality Games	Michael Lankes, Barbara Stiglbauer
1136	Optimizing Image Registration for Interactive Applications	Riccardo Gasparini, Stefano Alletto, Giuseppe Serra, Rita Cucchiara
1147	Improving Endovascular Intraoperative Navigation with Real-Time Skeleton-Based Deformation of Virtual Vascular Structures	Giuseppe Turini, Sara Condino, Matteo Postorino, Vincenzo Ferrari, Mauro Ferrari
1163	Visualization of Heat Transfer using Projector-based Spatial Augmented Reality	Karljohan Lundin Palmerius, Konrad Schönborn
1208	Audio-visual perception - The perception of object material in a virtual environment	Ryan Anderson, Joosep Arro, Christian Schütt Hansen
1213	An augmented reality guide for religious museum	Luca Greci
1214	Development of a HMD for Virtual Acoustics. Application in a World Heritage (UNESCO) building from the Valencian civil gothic	Sebastian Mirasol-Menacho, Ana Planells-Pérez, Arturo Barba-Sevillano, Jaume Segura-Garcia, Màximo Cobos-Serrano, Alicia Giménez-Pérez
1239	A wearable augmented reality platform for telemedicine	Marina Carbone, Cinzia Freschi, Stefano Mascioli, Vincenzo Ferrari, Mauro Ferrari
1250	Improving the development of AR application for artwork collections with standard data layer.	Emanuele Frontoni, Roberto Pierdicca, Ramona Quattrini, Paolo Clini
1251	Augmented Reality for the Control Tower: The RETINA Concept	Nicola Masotti, Sara Bagassi, Francesca De Crescenzo
1260	Enabling touchless interfaces for mobile platform: state of the art and future trends	Simone Marcutti, Gianni Viardo Vercelli
1268	eBSim: Development of a low-cost obstetric simulator	Andrea Paci, Simone Marcutti, Serena Ricci, Maura Casadio, Gianni Viardo Vercelli, Pierangelo Marchiolé, Massimo Cordone

## Poster Session 2

ID	Title	Authors
1284	Transparency of a Bilateral Tele-Operation Scheme of a Mobile Manipulator Robot	Victor Hugo Andaluz, Washington X Quevedo, Fernando A Chicaiza, José Varela, Cristian Gallardo, Jorge S. Sanchez, Oscar Arteaga
1297	Automatic Information Positioning Scheme in AR-assisted Maintenance based on Visual Saliency	Miko May Lee Chang, Soh Khim Ong, Andrew Yeh Ching Nee
1329	Facial landmarks for forensic skull-based 3D face reconstruction: a literature review	Enrico Vezzetti, Federica Marcolin, Stefano Tornincasa, Sandro Moos, Maria Grazia Violante, Giuseppe Monno, Antonio Emmanuele Uva, Michele Fiorentino
1331	Interactive Spatial AR for Classroom Teaching	YanXiang Zhang, ZiQiang Zhu
1337	The Design of Time-Nonlinear Interactive Player	YanXiang Zhang, Hiu Ye
1339	3D Reconstruction as a Service - Applications in Virtual Cultural Heritage	Octavian Mihai Machidon, Cristian Cezar Postelnicu, Florin Stelian Girbacia
1341	Virtual Reality Applications with Oculus Rift and 3D Sensors	Edi Ćiković, Kathrin Mäusl, Kristijan Lenac
1343	Third point of view Augmented Reality for robot intentions visualization	Emanuele Ruffaldi, Filippo Brizzi, Franco Tecchia, Sandro Bacinelli
1344	The Virtual Experiences Portals - A Reconfigurable Platform for Immersive Visualization	Ian D. Peake, Jan Olaf Blech, Edward Watkins, Stefan Greuter, Heinz W. Schmidt
1349	Virtual Reality for Product Development in Manufacturing Industries	Laura Schina, Mariangela Lazoi, Roberto Lombardo, Angelo Corallo
1354	Virtual Reality Pave the Way for Better Understand Untouchable Research Results	Eva Pajorova, Ladislav Hluchy
1355	Digital Reconstruction of Darul Aman Palace Based on Images and Implementation into Virtual Reality Environment	Mohammad Fadly SyahPutra, Joko Ali Permady, Muhammad Anggia Muchtar
1340	A system to exploit thermographic data using projected Augmented Reality	Saverio Debernardis, Michele Fiorentino, Antonio E. Uva, Giuseppe Monno
1194	Visualization of the renewable energy resources of the Republic of Kazakhstan	Ravil Muhamedyev, Sophia Kiseleva, Viktors I. Gopejenko, Yedilkhan Amirgali-yev, Elena Muhamedyeva, Aleksejs V. Gopejenko, Farida Abdoldina