VISIGRAPP 2014

9th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Application

GRAPP | IVAPP | VISAPP

5 - 8 January, 2014

Lisbon, Portugal

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The purpose of VISIGRAPP is to bring together researchers and practitioners interested in both theoretical advances and applications of computer vision, computer graphics and information visualization. **VISIGRAPP is composed of three co-located conferences,** each specialized in at least one of the aforementioned main knowledge areas.

GRAPP

9th International Conference on Computer Graphics Theory and Applications

Program Co-chairs
Sabine Coquillart, INRIA, France
Carlos Andujar, Universitat Politècnica de Catalunya, Spain

www.grapp.visigrapp.org

IVAPP

5th International Conference on Information Visualization Theory and Applications

Program Chair
Robert S. Laramee, Swansea University, United Kingdom

www.ivapp.visigrapp.org

VISAPP

9th International Conference on Computer Vision Theory and Applications

Program Chair
Sebastiano Battiato, University of Catania, Italy

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GRAPP

AREA 1: GEOMETRY AND MODELING

- Modeling and Algorithms
- Scene and Object Modeling
- Modeling of Natural Scenes and Phenomena
- Image-Based Modeling
- Solid and Heterogeneous Modeling
- Geometric Computing
- Surface Modeling
- Physics-Based Modeling
- Sketch-Based Modelling
- Multi-Resolution Modeling
- Fundamental Methods and Algorithms
- Model Validation
- Texture Models, Analysis, and Synthesis
- Reflection and Illumination Models
- Anthropometric Virtual Human Models
- CAGD/CAD/CAM Systems

AREA 2: RENDERING

- Real-Time Rendering
- Systems and Software Architectures for Rendering
- Volume Rendering
- Rendering Algorithms
- Image-Based Rendering
- Lighting and Appearance
- Non-Photorealistic Rendering, Painting-like rendering, Drawing
- Rendering Hardware
- Point-Based Rendering
- Shadows, Translucency and Visibility
- High-Performance Computing and Parallel Rendering
- Audio/Sound Rendering
- Computational Photography

AREA 3: ANIMATION AND SIMULATION

- Animation Algorithms and Techniques
- Real-time Visual Simulation
- Special Effects
- Facial Animation
- Animation Systems
- Animation and Simulation of Natural Environments
- Behavioural Animation
- Animation from Motion Capture
- Character Animation
- Plausible Motion Simulation
- Animation of Particle Systems
- Animation Languages
- Human Figure Animation
- Motion Control
- Crowd Simulation
- Physics-based Animation
- Image-based Animation
- Knowledge-based Animation
- Modeling and Simulation for Education and Training
- Motion Synthesis
- Retargeting of Motion Capture Data
- Animation Retargeting

AREA 4: INTERACTIVE ENVIRONMENTS

- Augmented, Mixed and Virtual Environments
- Virtual Tours
- Hardware Technologies for Augmented, Mixed and Virtual Environments
- Collaborative Augmented, Mixed and Virtual Environments
- Distributed Augmented, Mixed and Virtual Reality
- Collision Detection
- Real-time Graphics
- Advanced User Interfaces
- Mobile Interfaces
- Graphical Interfaces
- Virtual Humans and Artificial Life
- Graphics in Computer Games
- Interactive 3D Graphics and Immersive Systems for Servers, Desktop and Thin Clients
- Interactive 3D Graphics for Mobile Devices Like Smart phones, PDAs and UMPCs
- Non-Desktop Interfaces
- Sketch-based Interfaces
- Virtual Reality Tools and Languages (X3D, VRML, Java3D, OpenGL, ...)
- Integration and Interoperation Between 3D Documents and Web/Multimedia Technologies, Including the Semantic Web
- e-Learning Applications and Computer Graphics
- Games for Education and Training
- Evaluation of Human Performance and Usability in Virtual Environments

AREA 5: SOCIAL AGENTS IN COMPUTER GRAPHICS

- Social Agents and Avatars
- Emotion and Personality
- Autonomous Actors
- Artificial Inteligence based Animation
- Social and Conversational Agents
- Inter-Agent Communication
- Social Behavior
- Gesture Generation
- Emotional and Social Interaction with Virtual Agents

IVAPP

AREA 1: ABSTRACT DATA VISUALIZATION

- Visual Data Analysis and Knowledge Discovery
- Visual Representation and Interaction
- Data Management and Knowledge Representation
- Mathematical Foundations of Interactive Visual Analysis
- Display and Interaction Technology
- Databases and visualization, Visual Data Mining
- Graph Visualization
- Interface and Interaction Techniques for Visualization
- Internet, Web and Security Visualization
- Software Visualization
- Information Visualization
- Visual Analytical Reasoning
- Hardware-Assisted Visualization
- High-dimensional Data and Dimensionality Reduction
- Text and Document Visualization

AREA 2: GENERAL DATA VISUALIZATION

- Interactive Visual Interfaces for Visualization
- Interpretation and Evaluation Methods
- Knowledge-assisted Visualization
- Large Data Visualization
- Perception and Cognition in Visualization
- Visualization Applications
- Visualization Taxonomies and Models
- Visualization Algorithms and Technologies
- Visualization Tools and Systems for Simulation and Modeling
- Time-dependent Visualization
- Usability Studies and Visualization
- Glyph-based Visualization
- Collaborative Visualization
- Coordinated and Multiple Views

AREA 3: SPATIAL DATA VISUALIZATION

- Biomedical Visualization and Applications
- Flow Visualization
- GPU-based Visualization
- Image/Video Summarization and Visualization
- Multi-field Visualization
- Parallel Visualization
- Uncertainty Visualization
- Vector/Tensor Field Visualization
- Virtual Environments and Data Visualization
- Volume Visualization
- Scientific Visualization

VISAPP

AREA 1: IMAGE FORMATION AND PREPROCESSING

- Image Formation, Acquisition Devices and Sensors
- Device Calibration, Characterization and Modeling
- Image Enhancement and Restoration
- Image and Video Coding and Compression
- Multimodal and Multi-sensor Models of Image Formation
- Image Generation Pipeline: Algorithms and Techniques

AREA 2: IMAGE AND VIDEO ANALYSIS

- Image Registration
- Segmentation and Grouping
- Early and Biologically-inspired Vision
- Color and Texture Analyses
- Shape Representation and Matching
- Features Extraction
- Visual Attention and Image Saliency

AREA 3: IMAGE AND VIDEO UNDERSTANDING

- Cognitive Models for Interpretation, Integration and Control
- Machine Learning Technologies for Vision
- Face and Expression Recognition
- Content-based Indexing, Search, and Retrieval
- Object and Face Recognition
- Object detection and Localization
- Categorization and Scene Understanding
- Event and Human Activity Recognition
- Computational Photography
- Near Duplicate Image Retrieval

AREA 4: APPLICATIONS AND SERVICES

- Entertainment Imaging Applications
- Camera Networks and Vision
- Document Imaging in Business
- Medical Image Applications
- Pervasive Smart Cameras
- Human and Computer Interaction
- Digital Photography
- Media Watermarking and Security
- Multimedia Forensics
- Mobile Imaging
- Imaging for Cultural Heritage (Modeling/Simulation, Virtual Restoration)

AREA 5: MOTION, TRACKING AND STEREO VISION

- Image-based Modeling and 3D Reconstruction
- Stereo Vision and Structure from Motion
- Active and Robot Vision
- Optical Flow and Motion Analyses
- Tracking and Visual Navigation
- Video Surveillance and Event Detection
- Vision for Robotics
- Video Stabilization

PUBLICATIONS

All accepted papers (full, short and posters) will be published in the conference proceedings, under an ISBN reference, on paper and on CD-ROM support.
All papers presented at the conference venue will be available at the SCITEPRESS Digital Library (http://www.scitepress.org/DigitalLibrary/).
SCITEPRESS is member of CrossRef (http://www.crossref.org/).
The proceedings will be submitted for indexation by Thomson Reuters Conference Proceedings Citation Index (ISI), INSPEC, DBLP and EI (Elsevier Index).

VENUE

Lisbon is known as the white city, thanks to its unique light. The luminous environment and the kind climate allow for marvelous walks through the old town. The city has a beauty that extends beyond its famed monuments, an atmosphere that is best experienced directly in its quaint streets and alleys.
The culture, architecture and people found in the city's historical neighborhoods are fundamental aspects of Lisbon's identity, and those who explore them will discover their own personal map in this extremely lively city.