**Preface**

Welcome to the 29th International ACM Conference on 3D Web Technology – Web3D 2024! This year, we have face-to-face participation but continue to give the opportunity to participate online.

Web3D 2024 is sponsored by ACM SIGGRAPH and organised/hosted by the CCG/ZGDV Institute in Guimarães, Portugal, in cooperation with the Web3D Consortium.

The purpose of the conference and the Web3D community is to bring together researchers, industrials, and practitioners from around the world to study and share the principles of the latest advancements in interactive 3D technologies, including the Metaverse.

This year’s conference theme is “The Metaverse Workplace”, an integration of virtual reality, augmented reality, and other immersive technologies into the traditional workplace, creating a digital environment in which to collaborate, communicate, and work together. We want to evaluate how these technologies are advancing, providing new ways for people to connect and collaborate remotely.

This includes topics such as 3D applications and services accessible through a wide range of devices, from simple mobile phones to more complex systems such as AR/VR headsets, and heavily populated virtual worlds, especially those connected through high-speed, low-latency networks. The conference topics are many and diverse, framed in a set of areas of interest: Metaverse & Realities; Applications & Libraries; Content and Publishing; Humans, Avatars, and Animation; Industrial Applications; Transmission & Rendering; and Education and Studies.

In this edition, authors from several countries across the globe present 24 high-quality scientific research papers (16 full and 8 short papers) as well as 3 posters at the conference. Each submission was double-blind reviewed by three to four members of the Web3D 2024 International Program Committee, composed of renowned researchers. The review process has enabled publications covering topics like 3D Content Creation and Modeling, Web 3D Usage, VR Applications in various domains, Tools and Libraries.

In addition to the technical paper program, 3 Keynote presentations, a good set of Tutorials and Workshops, as well as an Industrial Use Cases Session have been organised, providing a variety of insights about recent 3D web technologies to all attendees. An interactive panel addressing the current status of the Metaverse completed the program.

We would like to thank all the authors for their contributions, as well as our keynote speakers: Dieter W. Fellner from the Fraunhofer Institute, Leonel Morgado from the Portuguese Open University & INESCTEC, Miguel Otaduy from the Universidad Rey Juan Carlos & Meta Reality Labs Research, Marta Palau from the European Commission for their excellent contributions.

An acknowledgement is also due to all those who have been involved in the preparation of this year’s outstanding program. In particular, we would like to thank all the Organizing Committee Members, International Program Committee Members, and our sponsors, 3dMD, Khronos Group, and CCG/ZGDV Institute, without whom the organisation of this event would have been much more challenging.

We hope you enjoy the conference!

A. Augusto Sousa (INESCTEC & University of Porto)  
Miguel Guevara (CCG/ZGDV Institute & Setubal Polytechnic University)  
Traian Lavric (Télécom Sudparis)

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