Computers & Graphics 102 (2022) A8-A9

Contents lists available at ScienceDirect

Computers & Graphics

journal homepage: www.elsevier.com/locate/cag

Editorial

Foreword to the special section on Recent Advances in Graphics and Interaction

This special section on Recent Advances in Graphics and Interaction features the papers submitted to Computers & Graphics (C&G) and presented at the 2021 edition of the International Conference on Graphics and Interaction – ICGI'2021 – which was held on November 4 and 5, 2021 at the Faculty of Engineering of the University of Porto, Portugal, as a joint organization with the Eurographics Portuguese Chapter — GPCG.

All submissions were fully peer-reviewed by at least three experts according to the standards of Computers & Graphics. This special issue received 15 submissions out of which four were accepted to be published in this special section of Computers & Graphics.

The first paper of this special issue, *Microstructure-based appearance rendering for feathers* [1], from Jessica Baron, Daljit Singh Dhillon, N. Adam Smith and Eric Patterson proposes a method for rendering feathers with a high degree of photorealism that takes into account the detailed substructures of feathers. In the second paper, *Data-driven insight into the puzzle-based cybersecurity training* [2], Karolína Dočkalová Burská, Vít Rusňák and Radek Ošlejšek present an analytical tool for cybersecurity puzzle-based training, created by the authors, useful for analyzing players' behavior and game design issues. In the third paper, *A survey of multisensory VR and AR applications for cultural heritage* [3], Anabela Marto, Alexandrino Gonçalves, Miguel Melo and Maximino Bessa discuss multisensory studies, by providing an analysis of evoked stimuli, what technologies were used to evoke each stimulus and the purpose of each implementation and conducted evaluations. Finally, in the last paper, *A vision for contextualized evaluation of remote collaboration supported by AR* [4], Bernardo Marques, Samuel Silva, António Teixeira, Paulo Dias and Beatriz Sousa Santos contribute with a critical analysis of remote collaboration supported by AR, presenting a conceptual framework to support researchers conducting evaluations in a more structured manner, and proposing an evaluation toolkit.

Our thanks to Computers & Graphics for enabling the publication of this special section. We also thank the authors and reviewers who actively contributed to the review of the manuscripts. Finally, we also want to thank all the members of the ICGI'2021 Organising Committee as well as the Eurographics Portuguese Chapter — GPCG for all the support and collaboration regarding this special section. For further information about ICGI'2021, please visit the official website https://gpcg.pt/icgi2021/.

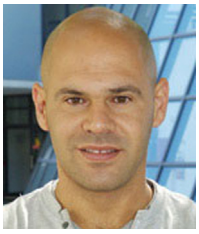
References

[1] Baron Jessica, Dhillon Daljit Singh, Adam Smith N, Patterson Eric. Microstructure-based appearance rendering for feathers. Comput Graph 2021. http://dx.doi.org/10.1016/j.cag.2021.09.010.

[2] Burská Karolína Dočkalová, Rusňák Vít, Ošlejšek Radek. Data-driven insight into the puzzle-based cybersecurity training. Comput Graph 2021. http://dx.doi.org/10.1016/j.cag.2021.09.011.

[3] Marto Anabela, Gonçalves Alexandrino, Melo Miguel, Bessa Maximino. A survey of multisensory VR and AR applications for cultural heritage. Comput Graph 2021. http://dx.doi.org/10.1016/j.cag.2021.10.001.

[4] Marques Bernardo, Silva Samuel, Teixeira António, Dias Paulo, Sousa Santos Beatriz. A vision for contextualized evaluation of remote collaboration supported by AR. Comput Graph 2021. http://dx.doi.org/10.1016/j.cag.2021.10.009.



Nuno Rodrigues is a Coordinator Professor, in the Department of Computer Science Engineering, at the Superior School of Technology and Management of the Polytechnic of Leiria. He is also a researcher in the Computer Science and Communications Research Center at Polytechnic of Leiria, Portugal. He received his Ph.D. degree in Computer Science from the University of Trás-os-Montes e Alto Douro, Portugal, in 2010. Nuno Rodrigues is the author and co-author of several papers in journals, conference proceedings, and book chapters in the areas of Computer Graphics, Augmented Reality, and HCI, among others. He was also a guest editor for several international journals. He also has been involved in several funded R&D projects. He also has frequent activity in reviewing articles for numerous international journals and conferences and is a member of the Eurographics Portuguese Chapter. His major research interests include: Procedural Modelling, Virtual Reality, Augmented Reality, Human–Computer Interaction.

Daniel Mendes is an Assistant Researcher at INESC TEC and an Invited Assistant Professor at the Faculty of Engineering of the University of Porto, Portugal. Received his Ph.D. (2018), M.Sc. (2011) and B.Sc. (2008) degrees in Computer Science and Engineering from Instituto Superior Técnico, University of Lisbon. His main interest areas are Human–Computer Interaction, 3D User Interfaces, Virtual and Augmented Reality, Multimodal Interfaces and Touch/Gesture-based Interactions. He has been involved in several national research projects funded by the Portuguese Foundation for Science and Technology (FCT). He co-authored more than 60 papers published in peer-reviewed scientific journals, conferences, and meetings. He is a member of ACM, IEEE, Eurographics and the Portuguese Group for Computer Graphics.

Luis Paulo Santos is an Assistant Professor at the Department of Informatics, Universidade do Minho, Portugal. He is also Senior Researcher at INESC TEC and Cooperation Researcher at the Iberian International Nanotechnology Laboratory (INL). His main research interests include global illumination, Monte Carlo simulations and quantum computing. He published several scientific papers on international conferences and journals focused on these areas of knowledge.

Luis Paulo Santos is a member of multiple conferences scientific committees, organized several conferences in Portugal and was Associate Editor of the Computers & Graphics journal.

https://doi.org/10.1016/j.cag.2021.12.006

He acted as the chair of the Eurographics Portuguese chapter from 2016 to 2020.

He was a member of the University of Minho team charged with creating an institute of the United Nations University focused on eGovernance and physically installed in Guimarães, Portugal. Over the last few years he focused on quantum computing applications and algorithms and leads the Quantum Software Engineering research group at INL.

Kadi Bouatouch is working on global illumination, lighting simulation for complex environments, GPU based rendering and computer vision. I am currently Emeritus Professor at the university of Rennes 1 (France) and researcher at IRISA Rennes (Institut de Recherche en Informatique et Systèmes Aléatoires). I was the head of the FRVSense team within IRISA until September 2017. I am member of Eurographics and was member of ACM and IEEE. I was/am member of the program committee of several conferences and workshops and referee for several Computer Graphics journals such as: The Visual Computer, ACM Trans. On Graphics, IEEE Computer Graphics and Applications, IEEE Trans. On Visualization and Computer Graphics, IEEE Trans. On image processing, etc. I have also acted as a referee for many conferences and workshops. I have served as a chair/committee member/reporter for several Ph.D. theses or higher doctorates in France and abroad (USA, UK, Belgium, Cyprus, The Netherlands, Spain, etc.). I was associate editor for the Visual Computer Journal. I am the conference chair of VISIGRAPP.

Nuno Rodrigues *
CIIC, ESTG, Polytechnic of Leiria, Portugal
E-mail address: nunorod@ipleiria.pt.

Daniel Mendes
INESC TEC, Faculdade de Engenharia, Universidade do Porto, Portugal
E-mail address: danielmendes@fe.up.pt.

Luís Paulo Santos
Universidade do Minho, INESC TEC, INL, Portugal
E-mail address: psantos@di.uminho.pt.

Kadi Bouatouch
IRISA, University of Rennes 1, France
E-mail address: kadi.bouatouch@irisa.fr.

2 December 2021
Available online 24 December 2021

* Corresponding editor.