Interweaving of the virtual and physical reality

Prof. Xubo Yang, PhD
Shanghai Jiao Tong University, China

Abstract
Mixed reality can provide novel interfaces, contents and experiences which usually merge computer-generated three-dimensional virtual contents seamlessly with physical world. In a general sense of mixed reality, there are many technical challenges and research opportunities for interweaving the virtual and physical reality. In this talk, I will introduce our research theme in this aspect and demonstrate with some of our related research projects, ranging from efficiently producing physically-based three-dimensional fluid animation contents, to designing novel mobile augmented reality interfaces and experiences that can automatically generate three-dimensional models and animations from creative drawings.

Xubo Yang is a professor and director of the Digital ART lab of School of Software at Shanghai Jiao Tong University, China. He received a Ph.D. in computer science at the State Key Lab of CAD & CG of Zhejiang University in 1998. He had worked on various VR/AR projects in Fraunhofer-IMK VE group, National University of Singapore and University of North Carolina at Chapel Hill. His research interests focus on next-generation media art computing technologies in the context of computer graphics, virtual reality, augmented reality, and intelligent human-computer interfaces. He has published many peer-reviewed papers in the field of virtual and augmented reality, and computer graphics. He has served as international program committee member for IEEE VR, ACM VRST, CASA and other related conferences. He serves as the vice director of Computing Graphics committee in China Graphics Society, and is also member of Intelligent Graphics Committee of China Society of Image and Graphics, VR committee, CAD&CG committee and CHI committee of China Computer Federation.

Contact: Prof. Dr. André Hinkenjann
andre.hinkenjann@h-brs.de