Visual Computing Colloquium
April 27th, 2016

New Technologies Driving Visual Computing Research

Wednesday, April 27th, 2016, 2:30 pm
Visual Computing Lab C061

Bonn-Rhein-Sieg
University of Applied Sciences
Grantham-Allee 20
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Prof. Dr.-Ing. Marcus Magnor
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Abstract:
Recent developments in consumer electronics have a profound impact even on fundamental research agendas and conference programs in visual computing. Programmable GPUs, 3D movies, Kinect, HDR displays, 4k video projectors, Oculus Rift, or all-in-one smartphones are just a few examples of how sudden, widespread availability and adoption of "new" technologies drive contemporary research (even though most of it had, in fact, already been available in the lab for quite some time). In my talk, I will concentrate on a few ongoing consumer technology trends and demonstrate how they are triggering intriguing new research in visual computing.

Vita:
Marcus Magnor heads the Computer Graphics Lab of the Computer Science Department at Technische Universität Braunschweig (TU Braunschweig).

He received his PhD (2000) in Electrical Engineering from Erlangen University.

For his post-graduate studies, he joined the Computer Graphics Lab at Stanford University. In 2002, he established the Independent Research Group Graphics-Optics-Vision at the Max-Planck-Institut Informatik in Saarbrücken. In 2009, he was Fulbright Scholar at the University of New Mexico, USA, where he holds an appointment as Adjunct Professor at the Physics and Astronomy Department. In 2011, Marcus Magnor was elected member of the Engineering Class of the Braunschweigische Wissenschaftliche Gesellschaft. He is laureate of the Wissenschaftspreis Niedersachsen 2012.
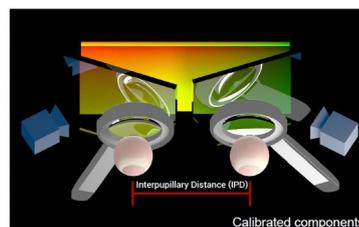
His research interests concern visual computing, i.e. visual information processing from image formation, acquisition, and analysis to image synthesis, display, perception, and cognition. Areas of research include, but are not limited to, computer graphics, computer vision, visual perception, image processing, computational photography, astrophysics, imaging, optics, visual analytics, and visualization.
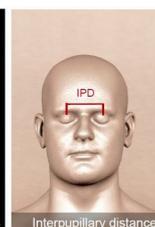

Virtual HMD model — Fig. 1
User with HMD prototype — Fig. 2
Calibrated components — Fig. 3
Interpupillary distance — Fig. 4

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