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# GASTVORTRAG

## Oliver Bimber

derzeit Bauhaus-Universität Weimar,  
ab Oktober 2009 Johannes-Kepler-Universität Linz



### “Projection over Four Orders of Magnitude ”

#### Abstract:

The combination of real-time visualization and image analysis with adapted imaging and display optics enable a large variety of new applications for projector-camera systems. These are ranging from intelligent illumination techniques in radiology, endoscopy and microscopy, over digital video composition techniques for visual effects in non-studio filmsets, to video projections on everyday surfaces in museums or historic sites. In this talk, I will give an overview over techniques and results from recent projects, such as SmartProjecting, VirtualStudio2Go, Superimposing Dynamic Range, Adaptive Coded Aperture Projection and Projected Light Microscopy. I will show how pixel size, contrast, and data complexity can vary over four orders of magnitude for different display and imaging applications that utilize projector-camera systems.

#### Biography:

Oliver Bimber is a Junior Professor for Augmented Reality at the Media System Science Department of the Bauhaus-University Weimar, and an Interim Professor for Computer Graphics at the Computer Science Department of the Brandenburg University of Technology Cottbus. In October 2009 he will start as a full professor for Computer Graphics at the Johannes Kepler University in Linz. He received a Ph.D. (2002) in Engineering at the Darmstadt University of Technology, Germany and a Habilitation degree (2007) in Computer Science (Informatik) at the Munich University of Technology. He is author of the book "Spatial Augmented Reality" (together with Ramesh Raskar, MIT) and serves on the editorial board of the IEEE Computer magazine (graphics and multimedia editor). Bimber's research interests include visual computing, real-time rendering and visualization, computer vision, image analysis and processing, optics and human visual perception in the context of next-generation display and imaging technologies.

**Datum:** 15. Mai 2009 10:30 Uhr s.t.

**Ort:** TU Wien, Favoritenstr. 9, Stiege 1, 5. Stock, Seminarraum E186

