Deep Space LIVE: Lightfields–The Future of Digital Photography

Tuesday, January 31, 2013/ 8-9 PM / Ars Electronica Center

(Linz, January 28, 2013) The next Deep Space LIVE on Thursday, January 31, 2013 at 8 PM will focus on light-field photography. Oliver Bimber, head of the Institute of Computer Graphics at Johannes Kepler University Linz, will elaborate on light-field technology and show how the new light-field cameras work. These devices make it possible to take pictures that can later be modified on the computer–changing, for example, their depth of field or perspective. This technology can also be used to produce a holographic depiction of three-dimensional content that can be seen without the aid of 3D goggles.

Light-field Photography

A light field contains all light rays in every direction as well as at every point within a three-dimensional space. In contrast to a three-dimensional image, a picture produced by light-field photography contains so much information that that it's no problem to switch between a two-dimensional and a three-dimensional image, and the depth of field and perspective can be modified. According to Oliver Bimber: "Light-field photography is going to revolutionize several areas–not only photography but other image processing applications as well such as in manufacturing, the entertainment industry and lighting technology."

Oliver Bimber

Oliver Bimber studied scientific computing in Giessen-Friedberg, Germany and at the Dundalk Institute of Technology in Ireland. He then conducted research at the Fraunhofer Institute for Computer Graphics in Rostock and in Providence, USA. After completing his doctoral dissertation at the TU–Technical University Darmstadt, he wrote his post-doc in Computer Science at TU Munich. Prior to his appointment as head of the Institute of Computer Graphics at Johannes Kepler University Linz in 2009, Oliver Bimber was professor in Weimar and guest professor in Cottbus. His scientific work is in a field at the nexus of computer graphics, computer vision, image analysis & processing, visual perception and applied optics.

Ars Electronica Center: http://www.aec.at/news/en/
Light Field Photography: http://en.wikipedia.org/wiki/Light-field_camera

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