TECHNISCHE UNIVERSITÄT WIEN
Institut für Computergraphik und Algorithmen
Arbeitsbereich für Computergraphik

OESTERREICHISCHE COMPUTER GESELLSCHAFT
AUSTRIAN COMPUTER SOCIETY

laden gemeinsam zum

GASTVORTRAG

Ruwen Schnabel

ISRA Vision AG in Darmstadt

"Efficient Point-Cloud Processing with Primitive Shapes"

Abstract:
In this talk I present methods for efficient processing of point-clouds based on primitive shapes. The set of considered simple parametric shapes consists of planes, spheres, cylinders, cones and tori. The presented algorithms are targeted at scenarios in which the occurring surfaces can be well represented by this set of shape primitives. This is often the case in many man-made environments such as e.g. industrial compounds, cities or building interiors. A primitive subsumes a set of corresponding points in the point-cloud and serves as a proxy for them. In particular, the talk will consider applications in the areas of compression, recognition and completion. Each of these applications directly exploits and benefits from one or more of the detected primitives' properties such as approximation, abstraction, segmentation and continuability.

Biography:
Ruwen Schnabel studied computer science at the University of Bonn, Germany, from where he received his Diplom degree in 2005 and his PhD in computer science in 2010 with a thesis in computer graphics. Then, he joined ISRA Vision AG in Darmstadt where he is working on vision systems for robot guidance. His research interests lie in point-cloud processing and rendering, especially of compressed data, reconstruction with hole-filling and recognition of shapes and objects in point-clouds.

Datum: 01. Juli 2011, 11:00 Uhr s.t.
Ort: TU Wien, Favoritenstr. 9, Stiege 1, 5. Stock, Seminarraum E186