

Weekly Meetings

Thursday 17/06/2010:

Dimitris - Ilias Gkanatsios - Microsoft Technologies [[slides](#)]

Thursday 17/06/2010:

Nikolas Ladas - OpenCL Tutorial [[slides](#)]

Links:

[Kronos Group OpenCL webpage](#)

[NVidia's Fermi Architecture web site](#)

[Fermi Architecture whitepaper](#)

[ATI's OpenCL tutorial](#)

Monday 23/04/2010:

Menelaos Levas - Modern GPU Trends and Techniques

Monday 16/04/2010:

Game presentation by students participating at Imagine Cup 2010

Monday 23/03/2010:

Didier Stricker - Augmented Vision [[more info](#)]

Abstract: *It is has long been understood that automated systems aiming to assist or interact with human activity need to have a degree of understanding of human behaviour in order to be effective. Actions and responses need to align with our expectations and information needs to be presented in a manner which reflects our own perceptions. **What is less well understood is how that understanding of behaviour is to be obtained.***

In this talk we will present the very first work of the department "augmented vision" of DFKI. The focus lies on capturing technologies and includes head-, hand-, arm- tracking, object identification and scene reconstruction. The goal is to build a precise digital representation of a real and dynamic scene, including humans executing given tasks and interacting with the surrounding. The technologies involve visual-inertial sensor units, inertial on-body sensors, fisheye as well as high-resolution spherical HDR-images. Current results will be presented and discussed in relations with achieved quality and required computing resources.

Friday 12/03/2010:

Alessandro Artussi - Color to Gray Using Appearance Based Model

Abstract: *The conversion from color to gray scale in the last years has become of practical importance; from the fact that we have available color source images, but often for economical reason we use output devices that can print or display only gray scale images. This conversion consists of a function mapping from 3D to 1D color space. If only the luminance channel is considered, then visually important image features are often lost. A robust mapping function is required when the goal becomes more ambitious such as to preserve visual differences, that means regions visually different in the source color image will be visually different to a similar degree, while respecting the luminance ordering as much as possible in the gray scale image. The talk will start with the introduction to the color to grayscale mapping problem and then will be presented a color to gray scale conversion method that uses an image appearance model to better predict the luminance of the image pixels, and uses an image fusion method to better capture the appearance differences in equiluminant (isoluminant) regions of the image.*

Friday 05/03/2010:

Panagiotis Zaharias - The gamer experience: Investigating relationships between culture and usability in massively multiplayer online games [[paper](#)]

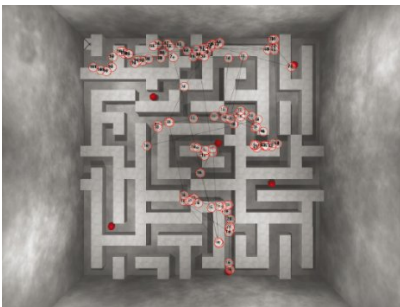
Abstract: *Massively multiplayer online games (MMOGs) are persisted virtual worlds capable of supporting hundreds or thousands of gamers simultaneously. Although every MMOG environment has its own "culture," gamers originate from different countries, speak different languages, and have different national cultural backgrounds. It is assumed that gamers' cultural diversity affects their online gaming experience and their perceptions of a game's usability; nevertheless knowledge is limited and relevant research is rare. This study aims for an empirical investigation between gamers' cultural dimensions and their perceptions of usability. A subjective measurement of usability is given in this study; usability is viewed in more holistic terms, beyond its functional dimensions, so as to capture social and affective dimensions as well, which are very important within the MMOG context. The findings of this exploratory study indicate that there are quantitative relationships between culture and the perception of usability of MMOGs. Such results have practical implications for the designers of MMOGs. A relevant discussion is also presented, along with future research dimensions.*

Friday 26/02/2010:

Marios Papas - Progressive Photon Mapping [[paper](#)]

Friday 19/02/2010:

Efstathios Stavrakis - Gaze Behavior in Computer Games [[paper](#)]



Tuesday 08/02/2010:

Christos Gatzoulis - Affective Computing and AI for Computer Games [[paper](#)] [[web](#)]

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Tuesday 20/01/2010:

Undergraduate Students Progress Presentations

Tuesday 13/01/2010:

Marios Papas - Appearance Modeling: Simulating the appearance of Paper

Abstract: *In this talk I will first give a brief overview of Appearance Modeling and then describe the different methods for realistically simulating the appearance of real life materials. Then I will focus on a specific class of materials similar to paper and describe in detail our work and the process of capturing and simulating its appearance. Paper, which is simply assumed to have diffuse characteristics by many, is actually a complex material consisting of thin layers of cellulose pulp and finishes. Thus, paper exhibits surface reflection, retro-reflection, and subsurface scattering, all of which cannot be fully described by standard models solely based on micro-facet or diffusion theory. Our general model combines multiple physically-based models to accurately account for these effects, while also using a minimal number of intuitive parameters to simulate paper-like materials with varying levels of thickness and finishes. Our work extends the multi-layered model by validating our parameters through actual measured data, rather than just simulation. This process is aided through a non-linear constrained minimization algorithm to find the closest fit against our BSDF samples.*



Wednesday 02/12/2009:

Panayiotis Charalambous - Simulating Virtual Crowds [[presentation](#)]