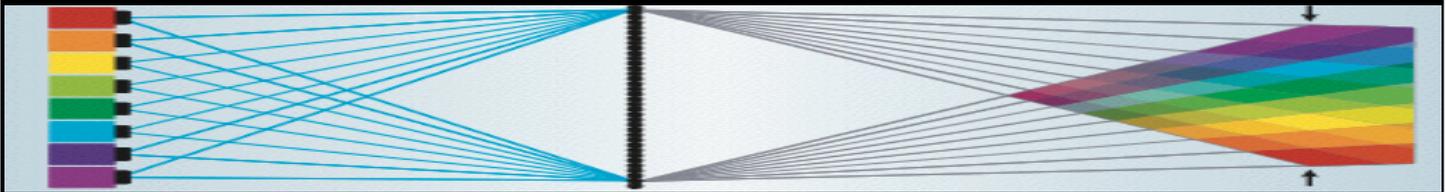# Project
3D Stereoscopic Movie Map of the IFI

University of ZurichUZH

Topic

3D stereoscopic movies and TV are rapidly gaining momentum in the entrainment and advertisement industry, and high-quality consumer 3D display systems are becoming widely available at low cost. Also the new **Google Cardboard** initiative further pushes this area.

Using a stereo-video camera, a tour through the IFI and Blnzmühle location should be recorded for experimental and promotional use. A previous 3D stereo video recording and display software is available. It can display the stereo video sequence on our stereo projection wall. Extensions of this may include methods for smoothing video sequences to eliminate jittering due to unsteady camera po...
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allows the user to navigate through the recorded rooms and hallways.

Assignment

In this project, a stereo video sequence should be captured and processed resulting in a smooth walk-through stereo video of our institute. Video real-time capturing and post-processing is done using our Bumblebee 2 stereo video camera and a specialized software.

A stereo-video display application must be implemented for our stereo projector and our multiview-stereoscopic LCD monitor and potentially for a Google Cardboard app that allows movie-like control and display of the recorded walkthrough video. The display application should allow the ... and navigation through ...s.

... the simple display application ... be ported to our Equalizer ... mework for display of the ... using passive and active ...ay (on immersive display

Requirements

Cross-platform application development with QT, C++. Basic knowledge of video processing and 3D graphics are beneficial.

Work Load

- 20% theory
- 60% implementation
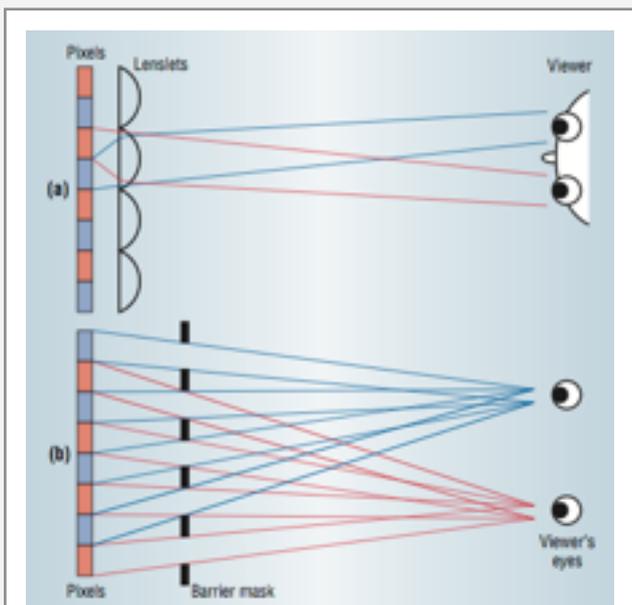- 20% testing

Project Type

Based on the scope of the topic and optional tasks, this project can be done as a Bachelor software project, Bachelor or Master thesis or project. Goals are adjusted depending on the project type.
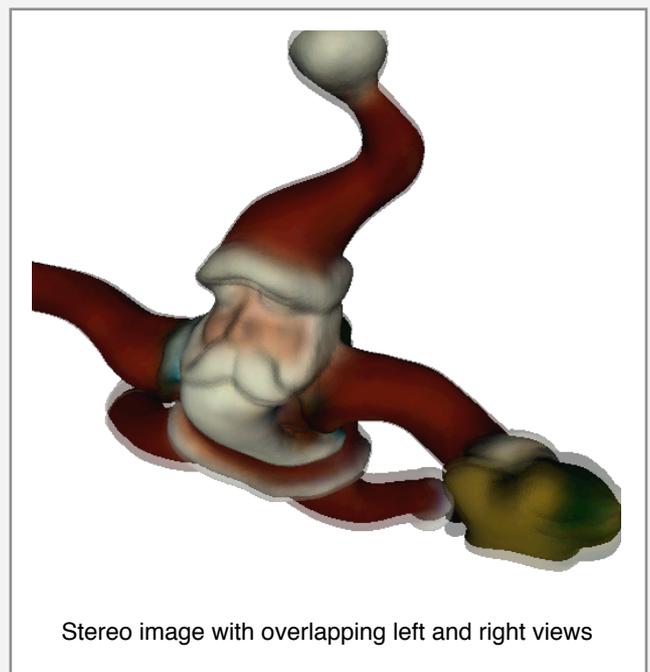
Supervision

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Multi-view auto-stereoscopic display systems

Stereo image with overlapping left and right views

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