



## Stereo Sequence Analysis

For this assignment you will record and process stereo sequences with the goal of calculating disparity or depth maps (one for each individual stereo pair of a given stereo sequence).

Given that all sequences, recorded recently with HAKA1, are generated under identical conditions (same camera, same data format for images and calibration data, all sequences of length 250), your application should finally allow to process any of the recently recorded sequences.

However, in your assignment you will focus on processing and discussing sequences as recorded by yourself, but you may discuss also results for other sequences (e.g., possibly also including those available on [www.citr.auckland.ac.nz/6D/](http://www.citr.auckland.ac.nz/6D/)).

Basically you have to (1) implement one stereo correspondence algorithm of your choice (e.g., taking the ranking on the Middlebury stereo website into account), (2) visualize the depth maps, (3) discuss the achieved quality of results, (4) report about all that in a brief presentation in 731.134 (time as specified in lectures), and (5) write a 4-6 pages report (pdf format) about all this (a LaTeX template is provided for optional use).

Implementation is in C/C++, and you may use OpenCV and other sources, but, of course, with citation in your report. For visual evaluation of results consider the 'Mini-IMAX' in 731.134.

Deadline is 25 August 2008. Submit via memory stick to Reinhard's machine (before 11.30am that day).