

Part 1. Lab 3
(2 hours, evaluated)

Motion estimation in videos

Purpose: Code and compare various motion estimation algorithms using C++ API of OpenCV.

Work environment: Linux, C++, OpenCV, ffmpeg, Gnuplot.

Get archive Lab3.tar.bz2 from:

<http://dept-info.labri.fr/~mansenca/VNAC2016/MotionEstimationDataSet/>

1. Global Motion Estimation

You have to estimate the global motion, centered at the center of the image, from the motion vectors obtained with the provided motion estimation method.

You will compute the perspective transformation (or homography) with the least square method coupled with the RANSAC algorithm.

We would like to visualize the residual motion.

Warning: if you use `cv::Mats` with `cv::findHomography`, you will probably have to use `cv::reshape`. See provided Lab3.cpp for more details.

**Send an archive with your code and report (with images and discussions),
named MYNAME_Lab3.tar.bz2, to : boris.mansencal@labri.fr**