

Multimedia (Lab 09)

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Summary

- In this lab, you will learn about
 - Window-based stereo matching algorithm

[Lab09]

- Implement a simple stereo matching algorithm by **window-based matching**.
 - Use the given Tzukuba stereo image pair:
 - Download the half size of Tzukuba image from “<http://vision.middlebury.edu/stereo/data/scenes2001/>”
 - Left image : “scene1.row3.col2.png”
 - Right image: “scene1.row3.col3.png”
 - Ground truth disparity map: “truedisp.row3.col3”
 - Resolution: 384 x 288 pixels



Left image



Right image



Ground truth
disparity map

- Instructions:
 - Set the disparity *search range* as from 0 to 16 pixels.
 - Matching cost computation: SSD (Sum of Squared Difference) between pixels in the left and right images
 - Use WTA (winner-takes-all) method for the selection of the best match