

Homework 2 for CAP6412
Due 16:30, 2 October 2003

Related to “Multi-Frame Correspondence Estimation Using Subspace Constraints”

Rank constraints were derived for the various camera models

1. Derive the rank constraints for pan, tilt, zoom camera. Notice that instead of full 3D motion there is only rotation around optical center, pan, tilt. There is no translation. Use case 3, Perspective Camera-Instantaneous motion, 3-D model in the appendix. Derive the rank for both cases, the varying and constant focal length.