



THE WEIZMANN INSTITUTE OF SCIENCE
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Vision and Robotics Seminar

Room 1 ,Ziskind Building
on Thursday, Mar 31, 2016
at 12:15

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Dynamic Scene Analysis Using CrowdCam Data

Abstract:

Dynamic events such as family gatherings, concerts or sports events are often photographed by a group of people. The set of still images obtained this way is rich in dynamic content. We consider the question of whether such a set of still images, rather than traditional video sequences, can be used for analyzing the dynamic content of the scene. This talk will describe several instances of this problem, their solutions and directions for future studies.

In particular, we will present a method to extend epipolar geometry to predict location of a moving feature in CrowdCam images. The method assumes that the temporal order of the set of images, namely photo-sequencing, is given. We will briefly describe our method to compute photo-sequencing using geometric considerations and rank aggregation. We will also present a method for identifying the moving regions in a scene, which is a basic component in dynamic scene analysis. Finally, we will consider a new vision of developing collaborative CrowdCam, and a first step toward this goal.

This talk will be based on joint works with Tali Dekel, Adi Dafni, Mor Dar, Lior Talked, Ilan Shimshoni, and Shai Avidan.