



PIMS

Pacific Institute for the
Mathematical Sciences

STUDENT PRESENTATION

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Title: Neuromorphic Computer Vision

Abstract: Traditionally a digital video is a series of images taken in quick succession. However, the frame rate is not high enough for some applications in computer vision. Furthermore, redundant data are generated even when there are no changes in the scene, so the same data are processed multiple times.

We are living at the dawn of self-driving cars, and drones have already become commonplace. The systems controlling them need to be able to respond faster than the frame rate of a regular video camera.

In recent years, a new kind of camera has been developed. Based on the way our eyes work, it only sends the information that has changed in the field of view, right at the moment it happens. Algorithms do not have to wait around for the next frame, they get the information as soon as it becomes available.

However, algorithms designed for regular video cameras do not work with this camera. In my talk I will show some of the approaches to create new algorithms to use on this camera and their limitations.

This work was done jointly with Behnam Kamranian and Howard Cheng.

Friday—April 5, 2019

12:00—12:50 pm

UHall B650

SNACKS!