

**Speaker: Andreas Artemiou (Cardiff University)**

**Date: 21/02/2023 at 13:15 in 8 West 2.20**

**Title: SVM-based real time sufficient dimension reduction**

**Abstract:**

We discuss in this talk one of the first efforts for real-time sufficient dimension reduction. Support Vector Machine (SVM) based sufficient dimension reduction algorithms were proposed the last decade to provide a unified framework for linear and nonlinear sufficient dimension reduction. We present our idea of using a variant of the classic SVM algorithm known as Least Squares SVM (LSSVM) to achieve real time sufficient dimension reduction. We demonstrate the computational advantages as well as the computational efficiency of our algorithm through simulated and real data experiments. This is joint work with my collaborators Yuexiao Dong (Temple University) and Seung Jun Shin (Korea University).