

# **EPSRC CDT in Distributed Algorithms**

## **PhD Project: Applications of Infinite Dimensional Compressive Sensing to Multi-Dimensional Analog Images using Machine Learning to Enhance Results**

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### **Project Description**

The aim of my project is to develop a STEM imaging system based on infinite-dimensional compressive sensing that optimises a sampling strategy involving a continuous probe position domain as opposed to the current finite methods where the locations of the probe are priori fixed while the recovery algorithm maps subsampled data to an analogue image with low computational complexity. The outcome should take the form of a new machine learning backed sampling, and reconstruction algorithm that greatly improves the accuracy and speed over current STEM imaging techniques.

Go to the [EPSRC CDT In Distributed Algorithms](#) website.