

EPSRC CDT in Distributed Algorithms

PhD Project: Faster Uncertainty Quantification of Hydrocodes

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Project Description

The aim of this project is to develop a single, integrated approach to analysing and speeding up uncertainty quantification on complex systems. The specific system used here is hydrocodes, which are high-fidelity simulations of fluid dynamics, involving computationally expensive calculations pertaining to chemistry and physics. This will be done using machine learning or other relevant methods to emulate a hydrocode with the purpose of studying sensitivity to the various input parameters and perform an uncertainty quantification, which is important to consider when determining the accuracy of the prediction.

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