Imperial College London

High Performance Computing for Transport: Scaling to handle next generation data capture, modeling and analysis

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Abstract

High Performance Computing (HPC) technologies have progressed significantly over the past few years. With ever-increasing processing power, storage and network bandwidth, considerable power is available for managing and processing data but making effective use of this power poses a challenge for many fields of research including transport. Most recently, new approaches to resource access and use, such as on-demand Cloud Computing services, are emerging and these open up further opportunities. In this talk Dr. Cohen will provide an overview of HPC and look at how emerging models for dynamic resource access can support both small research tasks and the scaling of infrastructure required to meet the next-generation of large-scale problems within the transport domain.

Biography

Dr. Jeremy Cohen is a postdoctoral researcher at the Centre for Transport Studies, Imperial College London. He has a background in Computer Science and a PhD from Imperial that focused on the development of virtual computing infrastructures for the next generation Internet. Jeremy has been involved in a variety of Grid computing and e-Science projects in areas including transport, Internet markets and bioinformatics and is currently working with the UK Transport Research Centre at CTS.