Teaching Methodologies for Technology Rich Environments

This research line investigates and develops methodologies of teaching technical and science subjects in augmented, blended and fully on-line modes of delivery with the use of HPC technology and Computational Science Research Methods as a teaching tool in bridging the HPC talent gap.

Summary

The Education and Training team holds expertise in implementation of technologies in the learning process, curricula development, learning analytics, and conceptual modelling and information systems. The appeal to design and implement on-line training and specifically MOOCs (Massive Open Online Course) is in the potential to reach wider audiences as there is an evident need to increase the HPC awareness among researchers and students.

Objectives

Using the team’s expertise and background experience in Higher Education context, we investigate, design and develop:

- Methodologies of teaching technical and science subjects in augmented, blended and fully on-line modes of delivery.
- Assessment and evaluation tools and methods for on-line learning.
- Use of HPC technology and Computational Science Research Methods as a teaching tool in breaching the HPC talent gap, especially in terms of research skills for multidisciplinary pre-doctoral studies and HPC competences for computational scientists.
- Developing computer mediated and collaborative learning activities for co-located and dispersed teams.

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