

HEC-WSI Annual Workshop 2023 (online)
16th October 2023



Welcome to the HEC-WSI Annual Workshop 2023



Agenda

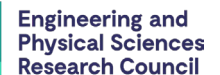
14:00 – 14:20	Welcome and introduction to the HEC-WSI	Deborah Greaves (University of Plymouth & HEC-WSI Chair)
14:20 – 14:40	The ARCHER2 service	Sebastien Lemaire (EPCC)
14:40 – 15:00	HEC-WSI Access Modes	Edward Ransley (University of Plymouth)
15:00 – 15:20	Recent HEC-WSI-supported examples	Edward Ransley (University of Plymouth)
15:20 – 15:30	<i>Short Break</i>	
15:30 – 16:00	The UK's HPC landscape and the HEC-WSI CoSeC Workplan	Stephen Longshaw (STFC)
16:00 – 16:30	Community Q&A session (open discussion)	
16:30 –	<i>Close</i>	

HEC-WSI Annual Workshop 2023 (online)
16th October 2023



Introduction to the HEC-WSI

Prof. Deborah Greaves
University of Plymouth



High end computing consortium for wave structure interaction (HEC-WSI)

- **Started:** 3rd January 2023
- **Ends:** 2nd January 2027
- **Funded by:** Engineering and Physical Sciences Research Council (EPSRC) [EP/X035751/1]
- **Motivation:** A new/emerging consortium to support the WSI community which is seeing rapidly increasing benefit from the use of HPC for modelling and simulation
- **Aims to:**
 - **Build a network** of computational researchers, and wider WSI community members, to **facilitate** world-class high end computing research in the field of WSI;
 - **Provide leadership** in developing strategic agendas for the WSI community;
 - **Enhance** the suitability of WSI software for high end computing;
 - **Provide a forum** to share knowledge and expertise;
 - Provide central core resource and **maximise community involvement** through inclusive and flexible access, opportunities and support.

HEC-WSI Management Group



HEC-WSI Chair: Prof. Deborah Greaves (University of Plymouth)



HEC-WSI Project Partners



Swansea
University
Prifysgol
Abertawe



Maynooth
University
National University
of Ireland Maynooth

Lancaster
University



CIMNE^R
INTERNATIONAL CENTRE
FOR NUMERICAL METHODS
IN ENGINEERING



National Research
Council of Italy



ARUP



CARDIFF
UNIVERSITY
PRIFYSGOL
CAERDYDD

UNIVERSITY OF
OXFORD



CCFE
CULHAM CENTRE FOR
FUSION ENERGY



University of Stuttgart
Germany



UNIVERSITY OF
CAMBRIDGE

UK acm
UK Association for Computational Mechanics

CATAPULT
Offshore Renewable Energy

WARWICK
THE UNIVERSITY OF WARWICK



University of
Strathclyde
Glasgow



University of
Southampton



**Imperial College
London**

Open  **CFD[®]**



Science and
Technology
Facilities Council



Engineering and
Physical Sciences
Research Council

HEC-WSI Activities

- **Website:** <https://hec-wsi.ac.uk/>
- **Mailing List:** <https://hec-wsi.ac.uk/contact/> (combined CCP-WSI, HEC-WSI, SIG-WSI list)
- **Events:** HEC-WSI Annual Workshop
- **Programme of Work:**
 - WP1: Porting, Optimisation and code developments for WSI (CoSeC – more later...)
 - WP2: Scientific use case development and sharing
 - Fully-coupled use case – floating offshore wind turbine (FOWT)
 - Showcase and provide a demonstrator for developments made in WP1
 - Openly accessible and shared as a benchmark
 - Used to explore machine learning techniques for low-cost surrogate model solutions
 - WP3: HPC Access Management (more later...)
 - WP4: Dissemination