



海岸和近海工程国家重点实验室 学术讲堂

题目: **A tool to support Floating Offshore Wind (FLOW): E^c Simulator**

报告人: **Prof. Lars Johanning**



时间: **2023年11月06日 10:00-11:00**

地点: **海动A301会议室 &
腾讯会议房间号: 775 8184 2394**

内容简介:

Professor Lars Johanning is a leading researcher with international recognition in the field of ocean technology with a focus towards offshore renewable energy and decarbonisation. He is Chair in Ocean Technology at the University of Plymouth and holds the role as Associate Head of School. He advised the ORE Catapult as member of the Research Advisory Group (RAG), provides expert advice within the Mooring Standards Committee to the IEC/TC114 and provided the technical lead in the development of the EU Ocean Energy Strategic Roadmap within the Ocean Energy Secretariat. He has extensive international experience, holding a Visiting Scholar at Dalian University of Technology; and led the development of resilient concept designs for floating offshore wind applications as part of the EPSRC/NSCF ORE UK-China project. He actively contributed to the China Council for International Cooperation on Environment and Development -CICCED- (www.ccced.net) special policy studies (SPS) on '*Ocean Governance: A sustainable blue economy towards carbon neutrality*', as the international co-chair (Task Team #3 – Ocean Energy) during Phase VII (2022-2027) and previous as the international co-chair (Task Team #5 - Renewable Energy) during Phase VI (2017-2022). He initiated and directed the Falmouth Bay marine energy Test site (FaBTest), and was responsible for the Marine-i Hub, a £12.2m European Regional Development Fund (ERDF) project as part of the Marine Hub Cornwall Enterprise Zone to stimulate and support business-led and market-driven R&D and innovation to support the South-West Floating Offshore Wind Accelerator programme.

Abstract: The E^c simulator has been developed as part of the Celtic Sea Floating Offshore Wind (FLOW) Accelerator, part-funded by the European Regional Development Fund. The E^c simulator tool is used to assess the economic value and the environmental impact of potential floating offshore wind (FLOW) developments. It aims to maximise the energy yield from developments, whilst minimising the associated environmental impact, carbon emissions and the costs of electricity generation. The model is based on comprehensive analysis of all stages in the lifecycle of a FLOW wind farm, from pre-development through to decommissioning. The E^c simulator will support government, developers and investors to determine the viability and deliverability of ScotWind and Celtic Sea projects, unleashing their full potential. It can also help inform decision making about FLOW developments worldwide. The E^c simulator is believed to be the most sophisticated software tool to inform FLOW development decision-making currently available anywhere in the world.