

## **Prof. Jun Zang**

Prof. Jun Zang is a Chair Professor of Coastal and Ocean Engineering, Deputy Head of the Department of Architecture and Civil Engineering, and a member of the Senate of the University of Bath, UK. She is also the Chair of PRIMaRE, a Partnership of world-class research institutions based in the UK for research in Marine Renewable Energy. She led/participated in several large national and international research projects that underpin the current development of open-source engineering tools, and open-source numerical models to help accelerate the development of marine renewable energy and improve the resilience and adaptation of coastal areas under extreme wave conditions. Apart from her other roles, she is also an Associate Editor of the International Journal on Offshore Mechanics and Arctic Engineering, Frontiers in Marine Science, and an editorial board member of several other journals. She chaired the prestigious 30th International Workshop on Water Waves and Floating Bodies (IWWF) in 2015, the China-UK Bilateral Workshop on Coastal Zone Disaster Early Warning and Mitigation under Extreme Weather in 2021, and a couple of other international conferences in recent years. She will chair the 10th PRIMaRE Conference in Bath on the 27th - 28th June 2023.



### **Keynote Presentation 13**

#### **A new approach for computing violent wave loading on offshore wind turbine foundations**

This presentation will give a brief overview of the recent studies on violent wave loading on offshore structures with a particular focus on monopiles, typical offshore wind turbine foundations. New findings from large-scale experiments performed at DHI, Denmark, and Kelvin Hydrodynamics Laboratory, UK, funded by the EU and EPSRC, will be discussed in this talk. The presentation will also discuss and compare the performance of several numerical methods on this problem ranging from potential flow solver to particle method. Particular attention will be paid to the importance of high-order non-linear wave loading, and the newly proposed novel approach and engineering tool for computing these high-order non-linear wave loading components.