

# FLUID DYNAMICS IN COASTAL AND OCEAN ENGINEERING

## Speaker

## Prof. Pengzhi Lin

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## Abstract

The presentation will start from brief introduction of the history of coastal and ocean engineering, followed by the discussion of current research frontiers in this field. All of these research frontiers essentially aim at providing better engineering solutions to exploring marine resources in a sustainable way, and thus dividing the studies into resources development and environment protection. With such background, the presenter will introduce the recent research activities taking place in his research group, mainly on various problems of fluid dynamics in coastal and ocean engineering. Their research activities include theoretical study, numerical modeling, laboratory experiments, and field survey for the following subjects: water wave transformation in changing topography, interaction of entrained air and ambient turbulence in breaking waves, wave dissipation by perforated breakwater, ecological restoration of coast and its role in coastal defense, dynamic responses of a floating marine structure, flow interaction with various flexible body (e.g., VIV of marine riser & cables, fish, etc.), offshore mining and subsea pipeline protection, liquid sloshing and control, etc.

## Biography

Prof. Pengzhi Lin is the member of European Academy of Sciences and Arts. He obtained his Ph. D. degree from Cornell University in 1998. He conducted postdoctoral research at Cornell and Hong Kong Polytechnic University from 1998-2000. In 2000, he joined National University of Singapore as an assistant professor and became the tenured associate professor in 2005. Now he is a Changjiang Distinguished Professor at Sichuan University, China. His research interests cover hydraulic, coastal and ocean engineering. He is an expert in computational hydrodynamics and its applications in various water-related problems. He is the author of the books "Numerical Modeling of Water Waves" and "Water Environment Modeling". He has published over 100 peer-reviewed journal papers, which receive over 8000 citations. He is the Chief Editor of Applied Ocean Research and the Associate Editor for Journal of Hydraulic Research, Journal of Hydro-environment Research, Journal of Hydraulic Engineering, Journal of Ocean Engineering and Marine Energy, and Water Science and Engineering.



**17 April 2024  
Wednesday**



**4:00 pm - 5:00 pm**



**Room 3598 (Lift 27/28)  
HKUST**

## Enquiry:

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