



Seminar Jointly Organized by Hong Kong Institute of Acoustics &  
Department of Mechanical Engineering- Hong Kong Polytechnic University

### Acoustic Metamaterials for Sound Absorption and Insulation

Date: 21 August 2025 (Thursday)

Time: 7:00 pm – 8:30 pm; registration starts at 6:30 pm (1.5 CPD Hours)

Venue: Lecture Theatres HJ302, 3/F, Wing HJ, PolyU Main Campus, Kowloon

Fee: Free of charge. Priority to HKIOA Members, PolyU Students and Staff.

### Seminar Highlights

Acoustic metamaterials are a class of artificially designed structures that exhibit unusual acoustic and mechanical properties. Recent advancements in this field have created exciting opportunities for manipulating sound waves and controlling noise. The rapid development of 3D printing technology has further enhanced the ability to fabricate complex structures.

In this seminar, Prof. YU Xiang from Department of Mechanical Engineering, the Hong Kong Polytechnic University will introduce the fundamental concepts of acoustic metamaterials and two research topics, namely ventilated acoustic metamaterials and sonic black holes, which demonstrated excellent sound absorption and insulation performances. Their applications and future potential in engineering projects will also be discussed.

### Speaker



**Prof. YU Xiang** is an assistant professor at the Department of Mechanical Engineering, The Hong Kong Polytechnic University. He obtained his B.Eng with first class honours and Ph.D from the same Department in 2011 and 2015, respectively. From 2015-2022, he worked as a research scientist III at the Institute of High Performance Computing, Agency for Science, Technology and Research, Singapore. His research interests primarily include vibroacoustic modeling, acoustic metamaterial, advanced functional material, noise and vibration control.

Prof. YU has published 66 papers in SCI journals and was ranked among top 2% of most-cited scientists globally in the field of Acoustics for the years 2022 and 2023. He serves as an Assistant Editor for the Journal of Sound and Vibration.



## Language

English

## Registration

The visit is free of charge and open to all interested parties. The total number of participants is limited to 110 for this event. Registration is accepted on a first-come-first-served basis, with priority given to HKIOA members, PolyU students, and staff. An electronic CPD certificate of 1.5 hours will be granted via email to the participants after the seminar. For any queries, please don't hesitate to contact [admin@hkioa.org](mailto:admin@hkioa.org). Please complete the online registration by 15 August 2025 (Friday). Email notification of successful registration will be delivered by 18 August 2025 (Monday).

Please register via the link or the QR code: <https://form.jotform.com/252149161967464>



Remark: The participant's personal information will be sent to PolyU for access QR code application.