

## Shipping bubbles and its impact on acoustic communications

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Conference Room, TMSI S2S Building, 18 Kent Ridge Road, Singapore 119227

Registration: [https://nus-sg.zoom.us/webinar/register/WN\\_6ZtugXLTRBi9zqq2kYN1A](https://nus-sg.zoom.us/webinar/register/WN_6ZtugXLTRBi9zqq2kYN1A)



### **ABSTRACT:**

As a bustling shipping hub, Singapore experiences significant maritime traffic. The movement of ships, particularly through propeller activity and the disruption of ship wakes, leads to the formation of numerous bubbles in the surrounding waters. These bubbles, surprisingly, have a long lifespan and can travel considerable distances. In this presentation, I will discuss my work on characterizing these bubbles and exploring their effects on underwater acoustic communications.

### **About the Speaker:**

Gabriel holds a B.Eng, M.Sc., and Ph.D. from the National University of Singapore and worked as a research engineer since 2014. He is a Research Fellow of the Acoustic Research Lab at TMSI. His research lies in the field of underwater acoustics and acoustic communications. He is interested in analyzing data from long-term deployments as well as using physical models to interpret or give modeling insights into the actual propagation phenomena. He is also interested in differentiable acoustic propagation models and their application to underwater communications. For his studies on the effects of bubbles on underwater acoustic communications, he collected and analyzed bubbles, shipping and communication data, and modeled the association between them. Gabriel is a proud father of two wonderful children and the dog-dad of a mischievous pup.