

Nitrogen in the Tropical Zone: from River to Ocean By Dr. Shan Jiang

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Date: Monday 14 July 2025

Time: 2:30-3:15 PM

Format: Hybrid.

Attend in person: TMSI Conference Room, Level 1 S2S
Building, No. 18 Kent Ridge Road, Singapore 119227

Host: Dr Chen Mengli

Please register: <https://shorturl.at/vbhHi>



ABSTRACT:

Nitrogen (N) serves as a crucial biogeochemical element in the biosphere, with extensive industrial applications and significant participation in diverse aquatic chemical reactions. The tropical zone represents a critical component in global N cycling based on its characteristic features of substantial surface loadings, expansive coastal interfaces, and highly variable marine conditions. This presentation will first outline N transformation processes and transport mechanisms in contrasting tropical fluvial systems, particularly focusing on high-turbidity rivers and organic-rich blackwater systems. Subsequently, the discussion will extend to coastal and marine environments, examining N utilization patterns and spatial distribution dynamics in the context of monsoon impacts and global thermohaline circulation processes.

About the Speaker:

Dr. Shan Jiang obtained his PhD in Biogeochemistry from Trinity College Dublin and commenced his research career at the State Key Laboratory of Estuarine and Coastal Research (SKLEC), East China Normal University (ECNU) in 2016. Over the past decade, he has investigated nutrient and organic matter dynamics in diverse coastal and marine ecosystems utilizing stable isotope techniques combined with microbial analyses (^{16S} rRNA sequencing, metagenomics, and DNA-based stable isotope probing [DNA-SIP]). His research primarily encompasses coastal regions across China and ASEAN nations. Dr. Jiang's current research centers on anthropogenic and climate change impacts on nitrogen cycling processes within aquatic and sedimentary environments.