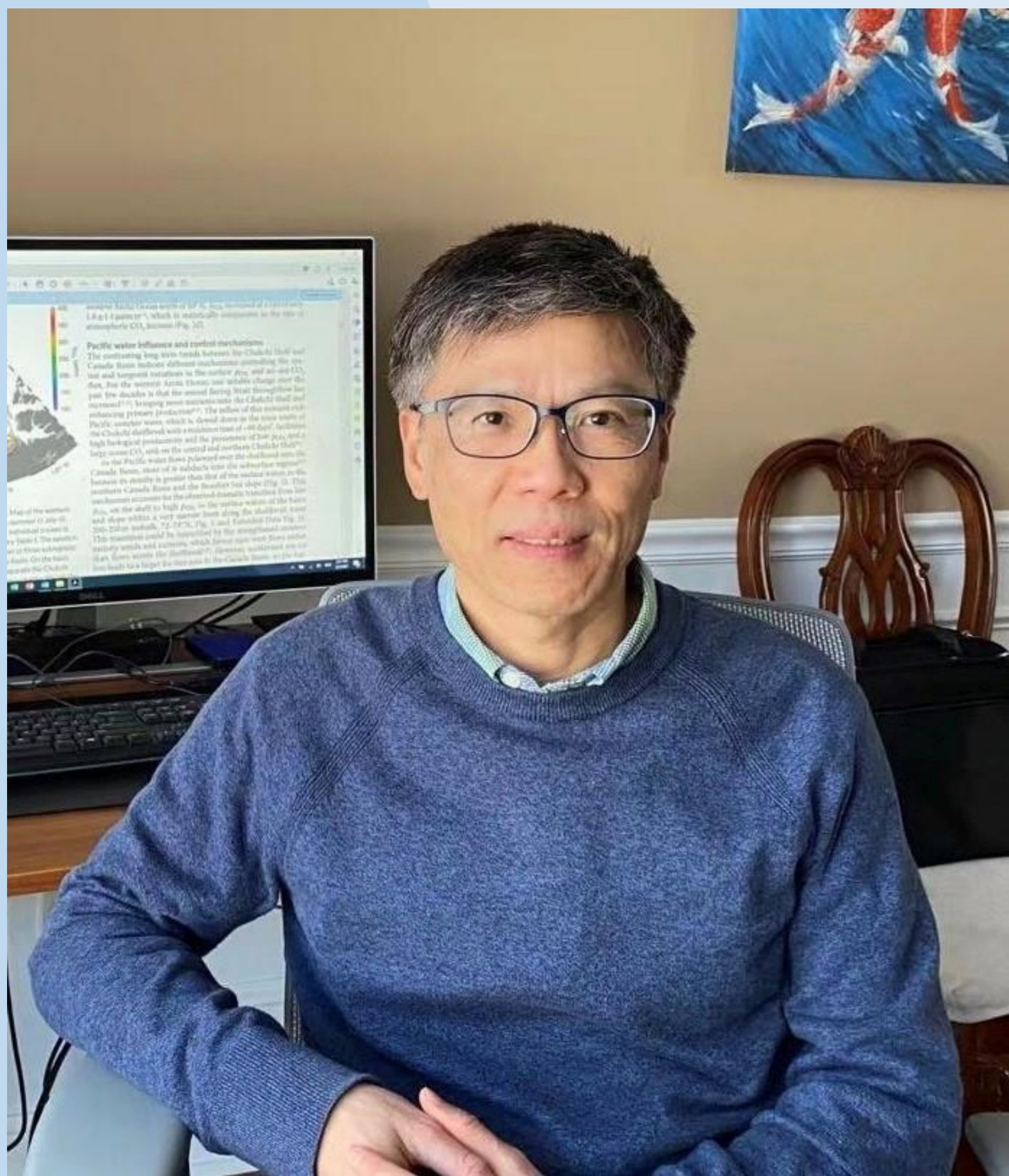


## Hong Kong Branch Distinguished Seminar Series



# Carbon Cycle, CO<sub>2</sub> Fluxes, and Ocean Acidification in Coastal Ocean Waters

**Prof. Wei-Jun CAI,  
University of Delaware, USA**

**Abstract:** Coastal oceans and estuaries are important sites for the Earth's carbon cycling research. In recent decades, increase of anthropogenic CO<sub>2</sub> in the atmosphere has acidified the ocean and affected the health of organisms and ecosystems therein. While studies have demonstrated more extreme acidification signals in coastal waters than open oceans, mechanisms controlling large spatial distributions of carbonate chemistry and the unique interactions between hypoxia and acidification in coastal oceans are still not well understood. Here, after a broad introduction, I will use surface carbonate parameters measured in ocean margins including estuaries to illustrate the general behaviors, principles, and complexity of carbon cycle, CO<sub>2</sub> fluxes, and ocean acidification in coastal waters. In particular, I will make a comparison of carbon cycle, carbonate chemistry, and acidification in the Northern Gulf of Mexico and Chesapeake Bay hypoxic waters. I will also recount some exciting stories in my personal journey of coastal ocean carbon cycle research.

**30 September 2021 (Thursday)**

**9:00 – 10:00 am (GMT +8, HK Time)**

[https://hkust.zoom.us/meeting/register/tJUld-qgqjgrGNDHcqa3T1uPRm6CEc\\_eY5wp](https://hkust.zoom.us/meeting/register/tJUld-qgqjgrGNDHcqa3T1uPRm6CEc_eY5wp)

**Meeting ID: 918 0384 3124**

**Passcode: 230**

**General Inquiry: hkb@ust.hk**

