



# "Climate Change and Antarctica" Public Lecture Series

#### **Co-organised with Hong Kong Space Museum**

**Date** 22 December (Sunday) and 28 December 2024 (Saturday)

**Time** 14:30 to 18:00

**Venue** Lecture Hall, Hong Kong Space Museum

ModeIn-personLanguageCantonese

All are welcome and no registration is required. Free admission on a first-come, first-served basis. Please click <a href="here">here</a> for details in Chinese. For enquiries, please contact Stephen Ng at <a href="mailto:ng.stephen@connect.hku.hk">ng.stephen@connect.hku.hk</a>.

#### **About the Series:**

Antarctica plays a key role for scientists in uncovering Earth's climate history and predicting future environmental changes. It also provides vital insights into the contemporary relationship between human society and nature. This public lecture series looks into the impact of global climate change on the Earth system, including the ocean, to complement the Space Theatre Show *Antarctica 3D*.

## "Submarine Volcanism and Climate Change" by Stephen Ng and Charles Lee 22 December 2024 (Sunday), 14:30–16:00

Volcanic activity, along with other natural factors, can impact Earth's climate. This lecture uses submarine volcanism as a case study to examine how underwater eruptions affect ocean chemistry, ecosystems, and consequently global climate patterns.

### "Climate Change since the Little Ice Age" by Rachel Chu 22 December 2024 (Sunday), 16:30–18:00

What caused the Little Ice Age four hundred years ago, and what technologies do paleoceanographers use to study the ancient ocean? This lecture will take a closer look at the interactions between the ocean and atmosphere, and from there formulate insights for future climate change.

# "Antarctica and Relative Sea Level Change" by Howard Yu 28 December 2024 (Saturday), 14:30–16:00

Climate change intensifies the melting of the Antarctic ice sheet, leading to a rise in global sea-level. This lecture explores the processes that drive the changes of ice sheet volume in Antarctica, the impact of ice-melt on relative sea levels throughout geological history, and the implication of these changes for future sea-level change.

### "Marine Plastic Pollution and Greenhouse Gas Emissions" by Mandy So 28 December 2024 (Saturday), 16:30–18:00

Recent research indicates that marine plastic pollution exacerbates climate change and ecosystem disturbances. This lecture will explain the connection between plastic decomposition and greenhouse gas emissions, which potentially impeded the global carbon storage capacity of the natural system.