



Joint IGA–GGA–CGA Lecture 2024

“From Seafloor Methane to Continental Flooding: Understanding the Palaeocene–Eocene Thermal Maximum and Global Climate Change”

By Prof. Jerry Dickens (Trinity College Dublin)

Abstract: Over a geologically brief interval about 56 million years ago, Earth’s surface temperatures soared by 6 °C, massive amounts of carbon dioxide entered the ocean and atmosphere, and ecosystems evolved dramatically. This event was the Palaeocene–Eocene Thermal Maximum (PETM) and is now widely acknowledged as our best past analogue for future anthropogenic climate change. Remarkably, however, its very existence presents major conceptual challenges. Our understanding of the PETM remains problematic through a combination of incomplete models, misinterpreted records, and scientific bias. In particular, carbon cycle models need to include methane in seafloor sediment and climate models need to include a greatly accelerated hydrological cycle. Geological records across the PETM need to be re-examined with these factors in mind.

Date and Time: Wednesday, 24th January 2024, between 19:00 and 20:00 via Zoom *and* in-person in Museum 4, Museum Building, Trinity College Dublin.

To Register: send an e-mail to info@geology.ie

A Zoom link will be sent on the day to those who have registered.