

The AusIMM Sydney Branch with AIG, SMEDG and GSA invite you to join Professor Ross Large AO for an AusIMM Geoscience Society Distinguished Lecture in Sydney

Date: Monday, 17 June 2019

Time: 5:30pm for 6:00pm start

Venue:

Club York, The Phillip Suite
95-99 York Street
Sydney NSW 2000

Cost: Free to attend

Includes: light finger food and refreshments

Registration is necessary please and closes on Wednesday, 12 June.

<https://ausimm.eventsair.com/82901-sydney-branch-2019/distinguished-lecture-sydney>

This event is brought to you by the AusIMM Geoscience Society, the AusIMM Sydney Branch, the Australian Institute of Geoscientists (AIG), the Sydney Mineral Exploration Discussion Group (SMEDG) and the Geological Society of Australia (GSA). It is worth 1 PD hour.



Please come and join **Distinguished Professor Ross Large AO**, Emeritus Professor of Economic Geology – The University of Tasmania, who will deliver a presentation entitled **“Rhythms of Earth and Life through Time”**.

Professor Ross Large is internationally renowned in ore deposit geology. He has published over 130 scientific papers and is particularly recognised for his research on the genesis of ore deposits and relationships to Earth evolution. His current research interest is the chemistry of past oceans and relationships to evolution of life, mass extinction and mineral deposit cycles.

Professor Large was the foundation Director of CODES, an ARC Centre of Excellence in Ore Deposits at UTAS. He has won many awards for his research achievements, including the Society of Economic Geology Silver Medal, and Australian Academy of Science Haddon King Medal for research excellence relevant to the minerals industry.

Rhythms of Earth and Life through Time

Research at the University of Tasmania by Professor Large and his team indicates that the regular collision of tectonic plates over the past 700 million years has been a prime driver of evolutionary change on Earth.

Nutrients in the oceans ultimately come from weathering and erosion of rocks on the continents. Weathering breaks down the minerals in the rocks and releases nutrient trace elements, which nourish life. Thus, when weathering and erosion rates increase for extended periods, more nutrients are supplied to the oceans.

The picture is now emerging that nearly all major Earth processes in geological history were cyclical in nature, with several orders of cycles superimposed. Supercontinent cycles led to mountain building cycles, which stimulated nutrient cycles, oxygen cycles, evolutionary cycles, climate cycles and mass extinction cycles.

While the link between these nutrient cycles as drivers of evolution and factors in mass extinction events remains to be proven, it really makes us think about evolution in a broad sense. Plate tectonics and evolution both operate on the same time scale of millions of years, and it seems logical that they could be causally related.

All geoscientists are welcome to join us for this highly stimulating distinguished lecture.

Sponsors:



**AUSTRALIAN
INSTITUTE OF
GEOSCIENTISTS**

