

# NPSS Climate Workshop on Nuclear and Plasma Solutions for Energy and Society



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## A Glaciological Perspective on Climate Change

*Sunday 27 October 2024 09:10 (50 minutes)*

Climate represents the main driver controlling the growth and demise of Earth's ice masses, which in turn play a major role in many physical and biological processes, including sea level, ocean currents, ecosystems, and climate itself, not to mention human activities. Thus, it is no surprise that shrinking and disappearing glaciers are often referred to as amongst the most dramatic evidence of recent, increased warming. Climate, and hence glaciers, have changed often in historical and geological times. The past evolution of glaciers, and history of glaciations, can therefore be used as a way to decipher past climate changes, essential to contextualise current climatic trends and scenarios, and to refine future predictions. In this talk, Prof. Matteo Spagnolo will use evidence of past glaciations (landforms and sediments), ice cores and other geological climate proxies to present a fascinating historical (hundreds to thousands of years) and geological (10s of thousands to millions of years) overview of what we know about the Earth's climate of the past.

**Presenter:** Prof. SPAGNOLO, Matteo (Scottish Alliance for Geoscience, Environment and SocietyThe University of Aberdeen)