Category
OS Ocean, Sea Ice

Session Number
OS-3

Session Title
Sea ice extent, properties, volume & ice shelves: modern and paleo records

Session Description
Antarctic and Arctic coastal and sea ice zones are undergoing rapid and prolonged changes. Portions of some Antarctic Peninsula ice shelves have collapsed and extensive bottom melting has been documented in other Antarctic ice shelves. Although submarine, air- and space-borne sensors provide a fairly accurate account of Arctic sea-ice volume trends, similar observations in the Antarctic are less common and more difficult to interpret. As a result we have much less understanding of sea ice volume despite its sensitive response to climate variability. In order to fully understand the significance of all the contemporary changes, it is also necessary to examine them within the context of past sea ice changes over longer timeframes from geological records using a range of proxy methods. In this session, we invite papers that focus on current and past Arctic and Antarctic sea ice trends, sea ice properties and processes, the current status of ice shelves and their interactions with sea ice, sea-ice volume measurement, monitoring, and prediction, together with the mechanisms that control them. In all cases, studies that offer interdisciplinary approaches (e.g. field measurements/proxy methods combined with modeling) are particularly welcome.

Keywords: Sea ice, Arctic, Antarctic, cross-disciplinary

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