



## **New assessment on the physics of climate change in the Arctic**

Rasmus Benestad and Ketil Isaksen

Norwegian Meteorological Institute, Research and Development, Oslo, Norway (rasmus.benestad@met.no)

In 2011 the Arctic Council directed the Senior Arctic Officials “to review the need for an integrated assessment of multiple drivers of Arctic change as a tool for Indigenous Peoples, Arctic residents, governments and industry to prepare for the future”. This resulted in the report “Adaptation Actions for a Changing Arctic” (AACA) with an input from the cryosphere and climate expert community on the current state and future projections. Some of the assessment was based on an update of the assessment report “Arctic Climate Issues 2011: Changes in Arctic Snow, Water, Ice and Permafrost” (SWIPA 2011). The SWIPA update was published alongside the AACA report. The SWIPA update provides a synthesis of current knowledge across the circumpolar regions, whereas the AACA report concentrated on three regions within the Arctic: Baffin Bay/Davis Strait, Barents region, Bering/Beaufort/Chukchi. Both reports were co-ordinated by the Arctic Monitoring and Assessment Programme (AMAP). We present some of the highlights from these reports and give an updated picture of the current state in the Barents region. The AACA report provides information about common climate variables in addition to phenomena for which there traditionally has been less documentation, such as fog, clouds, icebergs, hydrology, and storm tracks.