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Prospects for subseasonal sea ice prediction at both poles

Lorenzo Zampieri (1), Helge F. Goessling (1), Thomas Jung (1,2)

(1) Alfred Wegener Institute for Polar and Marine Research, Bremerhaven, Germany (lorenzo.zampieri@awi.de), (2) University of Bremen, Bremen, Germany

With retreating sea ice and increasing human activities comes a growing need for reliable sea ice forecasts up to months ahead. We exploit the subseasonal-to-seasonal (S2S) prediction database and provide a thorough assessment of the skill of operational forecast systems in predicting the ocation of the Arctic and Antarctic sea ice edges on these time scales. We find large differences in skill between the systems, with some showing a lack of predictive skill even at short weather time scales, and the best producing skillful Arctic forecasts more than 1 1/2 months ahead. We assess the forecast skill in both hemispheres, thereby showing that prospects for subseasonal sea ice predictions are promising, especially for Arctic late summer forecasts. To fully exploit this potential, it will be imperative to reduce systematic model errors and develop advanced data assimilation capacity.