Title: IPY Developments to Measure Arctic Sea Ice

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Abstract:

This poster demonstrates a range of tools, techniques, and capabilities that have been developed over the course of three Arctic projects supported through NSF and NASA during the IPY years. The main point of this poster is to convey the sense of complexity involved in direct measurements of sea ice. In particular, we focus on efforts to resolve a number of important differences between instruments and/or techniques; differences which have a profound impact on the long-term monitoring and quantification of sea ice mass balance. Several publications are complete, under review, or accepted manuscripts with highlights from five example publications shown here.

Antarctic Poster:
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Title: Improving the Climatology of Antarctic Sea Ice Thickness

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Abstract:
We demonstrate here recent advances to incorporate sea ice thickness estimates in operational products for integration with climate models and sea ice forecasting. Examples are from a collection of papers which characterize the quality of ship-based observations and ice chart products. Findings show these products provide a valuable resource for validating and improving climate models and regional ice forecast systems. Quantifying the uncertainties also provides users with decision making information when evaluating these products for their applications. These scientific efforts serve as a framework for guiding future improvements in operational ice chart products and developments.