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The Sea Ice Drift Forecast Experiment: Insights from 22,000 forecasts and a look ahead

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SIDFEx is a YOPP community effort to solicit, collect, and analyze sea ice drift forecasts, based on various methods, for a number of IABP sea-ice buoys on a regular basis. SIDFEx is inspired by increasing research and operational needs to forecast future positions of assets drifting in Arctic sea ice and will support the MOSAiC drift 2019-20. A systematic assessment of real drift forecasting capabilities is foreseen to improve our physical understanding of sea ice and to identify and resolve model shortcomings.

Since the launch of SIDFEx in 2017, eleven groups have started contributing drift forecasts to SIDFEx on a regular basis. Most groups derive their 10-days to seasonal-range forecasts by means of diagnostic tracking based on prediction drift fields of coupled or uncoupled general circulation models. Some groups submit ensembles of drift trajectories instead of single (deterministic) trajectories, and several groups submit their forecasts in real-time. We present results from more than 22,000 forecasts and future plans, in particular for the supply of the MOSAiC Arctic ice drift campaign, commencing in autumn 2019, with real-time drift forecasts.