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Volume transports through Fram Strait 1995 - 2005: comparing model simulations and measurements

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Focussing on volume transports through Fram Strait, we will discuss model results from a coupled ocean - sea ice model with different resolutions ($\sim$ 1/12 ° and $\sim$ 1/4 °) and data from a mooring array along 79°N.
We argue, that the combination of model results and long-term measurements can improve the interpretation of measured and simulated processes and help to estimate the exchange rates between Arctic and the North Atlantic. Furthermore, we show, that the high – resolution version of our model can also support the design of mooring arrays: using only the subsample of the available model information - comparable to the resolution of the mooring array - we can derive volume transports similar to those measured by the mooring array.