Integrated retrieval of sea ice and atmospheric parameters in the Arctic

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Current climate projections suggest that some of the most dramatic climatic changes of the century will take place in the Arctic. The repercussions these changes will have on the global climate system motivate the intense efforts to monitor the physical parameters of the Arctic atmosphere and ocean.

Sea ice and atmospheric parameters are interdependent parts of the complex Arctic climate system and decoupling them in order to achieve single parameter retrieval is problematic. With this talk I want to present an ongoing project which aims to achieve single sensor, simultaneous retrieval of sea ice and atmospheric parameters in the Arctic using an optimal estimation approach.