

## **How not to compare models and observations**

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Arctic and Antarctic sea-ice trends as obtained from IPCC models do usually not agree with observed trends. Hence, the models must be wrong. This reasoning is surprisingly widespread both in the scientific literature and in the general discussion of the quality of IPCC model simulations. In this presentation, I will outline why this reasoning is wrong, and why we can often learn surprisingly little about model quality through a direct comparison of model simulations and observations. The presentation will also discuss what kind of observations would be most useful for the identification of shortcomings in sea-ice models, and why in many areas of sea-ice research a closer cooperation of modelers and observationalists is highly desirable.