



## **When is all the sea ice gone?**

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We examine the future evolution of Arctic sea ice, focusing in particular on the allowable carbon dioxide emissions that would prevent sea-ice loss in the various seasons. In this context, the relationship between model simulations and observations is crucial, and we will briefly discuss why it is so difficult to identify models that most reliably simulate the future of Arctic sea ice. Based on this discussion, we will then introduce an observation-based estimate of the future evolution of Arctic sea ice that considers our physical understanding of the main processes that cause the ongoing ice loss.