



## **How Climate Model Complexity Influences Sea Ice Stability**

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Two types of idealized climate models find instabilities, or ‘tipping points’, during the retreat of sea ice under global warming: (i) annual-mean latitudinally-varying diffusive energy balance models (EBMs) and (ii) seasonally-varying single-column models (SCMs). Comprehensive global climate models, however, typically find no instabilities. To bridge this gap, we develop an idealized model that includes both latitudinal and seasonal variations. The model reduces to a standard EBM or SCM as limiting cases in the parameter regime, thus reconciling the two previous lines of research. Our results suggest that the ice cover is significantly more stable than found in previous idealized models.