

***Interactive comment on “A recent bifurcation in
Arctic sea-ice cover” by V. N. Livina and
T. M. Lenton***

J. OVERLAND

james.e.overland@noaa.gov

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This is an interesting paper and a welcome addition to the discussion. The tie to bifurcation theory is important. This is some backup to the new Arctic or new normal ideas.

There are different ideas on tipping points. Mine would be that after a threshold is crossed, that internal dynamics would continue the loss. This is not quite the same as bifurcation, unless it leads to a cascade of bifurcations.

The paper also needs to acknowledge changing external forcing. Mathematically there might be a jump back to a previous state, but the continued warming and ice loss suggests not.

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Interactive comment on The Cryosphere Discuss., 6, 2621, 2012.

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