

Interactive comment on “Arctic sea ice variability and trends, 1979–2010” by D. J. Cavalieri and C. L. Parkinson

Anonymous Referee #1

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In general this is not an interesting paper. It is simply an update to earlier published work by the authors and provides little scientific value to the community except for a reference for updated regional and hemispheric trends Arctic sea ice trends. As such, it's probably more suited for a technical report. And even then, the authors should go at least through 2011 with their trend analysis.

There are other studies that have talked about the recent acceleration of the sea ice cover, including: Stroeve, J.C., M.C. Serreze, J.E. Kay, M.M. Holland, W.N. Meier and A.P. Barrett, (2011). The Arctic's rapidly shrinking sea ice cover: A research synthesis, Climatic Change, doi: 10.1007/s10584-011-0101-1, that detail not only the acceleration of sea ice loss, but also the factors contributing towards this loss.

The reasoning for the statistical test is weak. If the method has been criticized widely,
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and since there is autocorrelation in the data (for September it is 0.81), then perhaps the authors should at least follow Santer et al. 2008 and account for the autocorrelation in computing the standard deviation of the trends.

The conclusions are also rather weak. They consist mostly of a cursory summary of factors contributing to the sea ice decline and these statements do not support the last statement in the conclusions as to the future of the sea ice cover.

Interactive comment on The Cryosphere Discuss., 6, 957, 2012.