

Interactive comment on “Extratropical cyclones over the North Atlantic and Western Europe during the Last Glacial Maximum and implications for proxy interpretation” by Joaquim G. Pinto and Patrick Ludwig

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I really enjoyed reading this manuscript and I hope the review process will be smooth. I have two small comments/requests though:

(1) This manuscript was recently accepted for publication in EPSL. Among other things, it presents a new interpretation of the LGM jet zonalization in the N Atlantic and the precipitation distribution in SW Europe. I would greatly appreciate if the authors could cite this paper when you discuss these topics in the introduction. Link to accepted

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manuscript:

<https://authors.elsevier.com/a/1aRAS,Ig4KpRO>

(2) The main result of the present study is at odds with a number of GCM studies that, contrary to findings here, show a reduced storminess in the N Atlantic at the LGM. It would be good to add a paragraph in the discussion section that puts these contrasting results in perspective with one another, and if possible, provide at least a speculative interpretation of possible sources of this discrepancy. For example, it could be model dependent (the top three studies used CCSM3 derivatives, and Riviere et al used IPSL), resolution could be a factor (this paper discussed this aspect in some detail in GCM simulations – see e.g. Fig 1: <https://www.the-cryosphere.net/12/1499/2018/tc-12-1499-2018.html>), parameterizations, boundary conditions (again, top three studies used PMIP2 boundary conds.), etc.

Li and Battisti, 2008 JCLim <https://journals.ametsoc.org/doi/full/10.1175/2007JCLI2166.1>

Donohoe and Battisti, 2009 JCLim <https://journals.ametsoc.org/doi/full/10.1175/2009JCLI2776.1>

Lofverstrom et al. 2016 JAS <https://journals.ametsoc.org/doi/full/10.1175/JAS-D-15-0295.1>

Riviere et al, 2018, JCLim <https://journals.ametsoc.org/doi/full/10.1175/JCLI-D-17-0247.1>

Interactive comment on Clim. Past Discuss., <https://doi.org/10.5194/cp-2019-139>, 2019.

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