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Subject: Smoothing global land-only data without land/sea boundary errors and then applying a land-mask?

Posted by [rjp23](#) on Wed, 24 Apr 2013 09:17:53 GMT

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I can't quite figure out how to do this so was hoping someone would have a suggestion.

I have a global dataset on a regular grid with a 2 degree resolution.

This data is primarily only over land but also contains some gaps (i.e. some of the grid cells contain NaN).

I want to smooth this data out but when doing so, I have an issue at the land/sea boundaries as all of the sea data is NaN.

In addition to this, even if the smoothing at the coastline worked, it would then smooth the data out into the ocean and I'd need to apply some kind of land mask to only show the smoothed fields when they are over land.

At the minute the only way I can think of doing this is by regridding to a much higher resolution but that doesn't seem like a very good way of doing it.

Any help would be great.

Cheers

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