

Review Comments for 'The coherence of small island sea-level with the wider ocean: a model study'
by Williams and Hughes

The manuscript shows that there is a latitude dependant discrepancy in sea level measurements between some island tide gauges and nearby satellite altimetry which confirms the finding of some previous studies. The authors provide a suggestion that this discrepancy is due to the inability of steric signals to propagate as baroclinic Rossby waves. While I found this conclusion interesting I would suggest it is only a 'first order' approximation and it is likely that other dynamical processes are important.

While I found it an interesting read, it was fairly difficult to follow some of the analysis also the figure resolution is poor and this made it difficult to see some of the finer detail. I would recommend publication in Ocean Science with a minor (mostly technical) revision.

Minor comments:

Pg3050; L23: 'also usually more than...' should be 'also usually from water more than...'

Pg3050; L26: suggest addition of 'Furthermore, it is also very low....'

Pg3051; L5-7: I found this confusing, is there another way of saying this?

Pg3052; L15: I am unfamiliar with 'run 401' what does it mean?

Pg3055; L20 and Pg3058; L9: suggest 'between the islands and deeper water' instead of 'to'

Pg3058; L24-26: I find this section confusing and incomplete. L24: as well as what? Could you offer an explanation as to why the pressure admittance and coherence is very similar, furthermore why does this change for the annual period?

Pg3059; L13-17: I have missed the relationship between the poor coherence between rings and eddies. I believe this is quite an important point, would it be possible to clarify it?

Pg3059; L23 – and other places: Should this be bathymetry instead of topography?