Interactive comment on “Geodynamic diagnostics, scientific visualisation and StagLab 3.0” by Fabio Crameri

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Although it would be interesting, and probably useful to give a general overview over all important diagnostics applied in the field, this section is intended to cover only diagnostics that are included and performed in StagLab itself. I do therefore not include some basic diagnostics like the calculation of the geoid or the Nusselt number here in detail, but certainly consider adding these to a later version of the software.

However, visualising radial profiles or temporal graphs of globally averaged values of pre-calculated diagnostics (like Vrms, mean temperature, plateness and mobility) is built into StagLab (see e.g., Supplementary figure S3). I therefore added two sections explaining plateness and mobility. Again, I agree that calculating these kinds of radial
profiles directly from the field data would be a useful addition to StagLab in the future. I have now rearranged the order in this part of the manuscript and renamed the section headings to for clarification following the suggestions of the reviewer.