

Interactive comment on “Lithospheric and sub-lithospheric deformation under the Borborema Province of NE Brazil from receiver function harmonic stripping” by Gaelle Lamarque and Jordi Julià

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We greatly thank Fernando Ornelas Marques for such detailed references about inversion and uplift in South American continent and in NE Brazil. We do our best to integrate these informations within our geological settings by citing local studies on NE Brazil, which is our region of interest in this paper.

Modifications within the manuscript:

C1

lines 27 to 31 page 4:

"Cenozoic uplift **along the northeastern brazilian margin** was inferred from relative dating of elevated sediments of the Serra dos Martins formation absolute dating from apatite fission-track analysis of granitic-gneissic **and sedimentary** samples **and geomorphological studies** (Morais Neto et al., 2009; de Oliveira and Medeiros, 2012, **Nóbrega et al., 2005**; **Nogueira et al., 2015**). Although some sort of tectonic uplift and/or inversion of the Araripe basin seems to be widely accepted (Marques et al., 2014; Peulvast and Bétard, 2015; Garcia et al., 2019), uplift in the Borborema Plateau is more debated"

C2