

Supplementary Material

1 Supplementary Figures

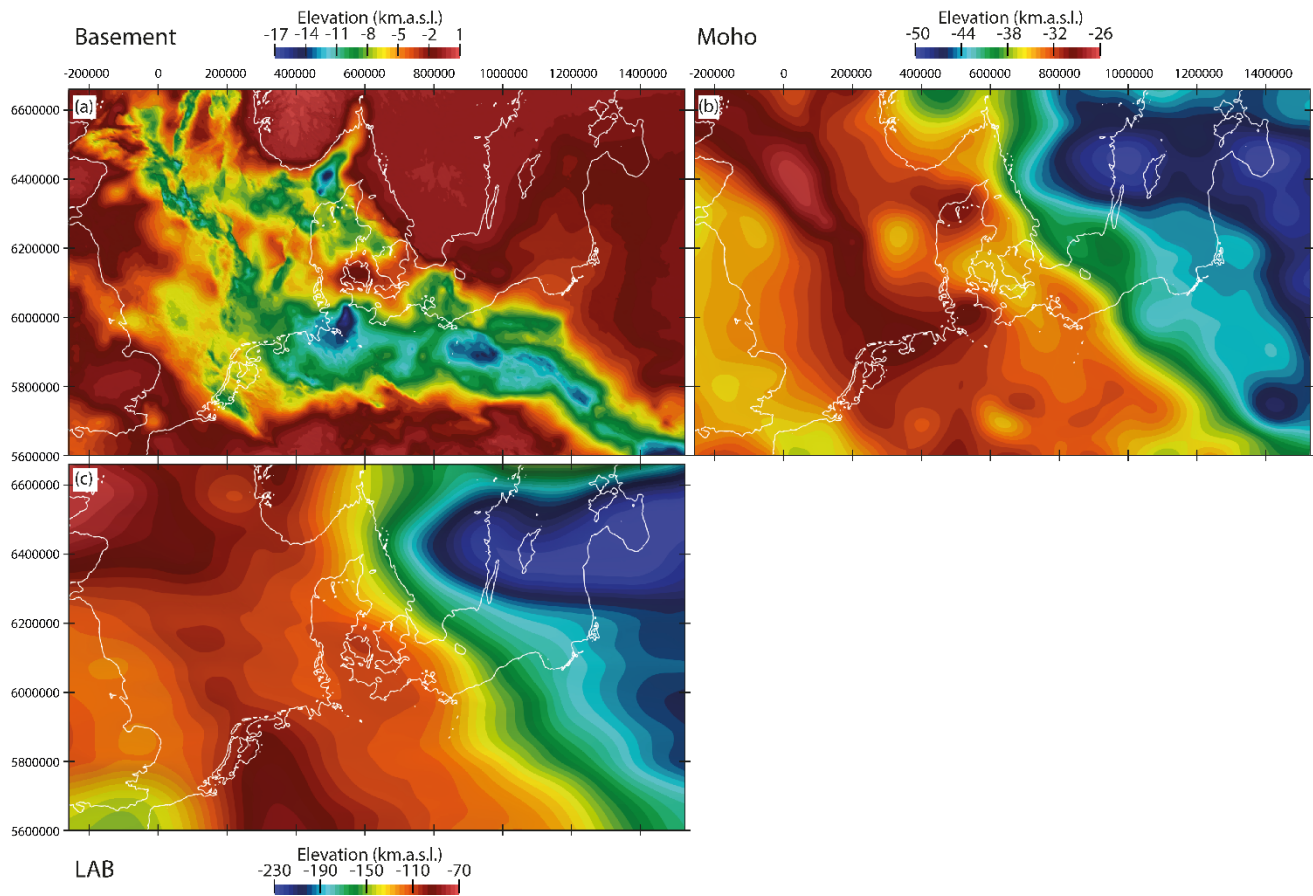


Figure 1: Elevation distribution of the (A) top of the basement, (B) Moho, (C) LAB – Lithosphere-Asthenosphere-Boundary (Maystrenko et al. 2020; Maystrenko et al. 2012; Maystrenko and Scheck-Wenderoth 2013; Scheck-Wenderoth and Maystrenko 2013), White line indicates coastline, Colorscale for each individual panel above (A,B) or below (C), Coordinates are in UTM Zone 32N.

2 Supplementary Videos

We provide two video files showing the temperature and pressure boundary condition over time. The video files are rendered in two panels: left: map view of spatially distributed temperature/pressure with indication of time step on top. White line indicates coastline = 0 m elevation. Color-coding indicated below map. Right: chart view of temporal development, indicating minimum (min), median (med) and maximum (max) pore pressure as lines and the 75%ile as shaded area.

3 Supplementary references

All temperature data used for the validation of the model were derived from:

(Agemar et al. 2014; Andrews-Speed et al. 1984; Argent et al. 2002; Bujakowski et al. 2010; Eriksson et al. 1979; Förster 2001; GEOTIS-TEAM 2011; Geozentrum Hannover (LBEG) 2011; Gladysz et al. 1994; Japsen et al. 2007; Kühn and Günther 2007; Kus et al. 2005; Leibniz Institute for Applied Geophysics (LIAG) 2011; Luijendijk et al. 2011; Majorowicz 1979; Norwegian Petroleum Directorate (NPD) 2007; Okiongbo 2011; Pester et al. 2010; Petmecky et al. 1999; Rodon and Littke 2005; Schöner 2006; Szewczyk and Nawrocki 2011; The Global Heat Flow Database of the International Heat Flow Commission 2011; Van Balen et al. 2002; Van Balen et al. 2000; Vandenberghe and Fock 1989; Verweij et al. 2010; Verweij 2003; Wohlenberg 1979; Yu et al. 1995)

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