Introduction

This supporting material contains two figures.

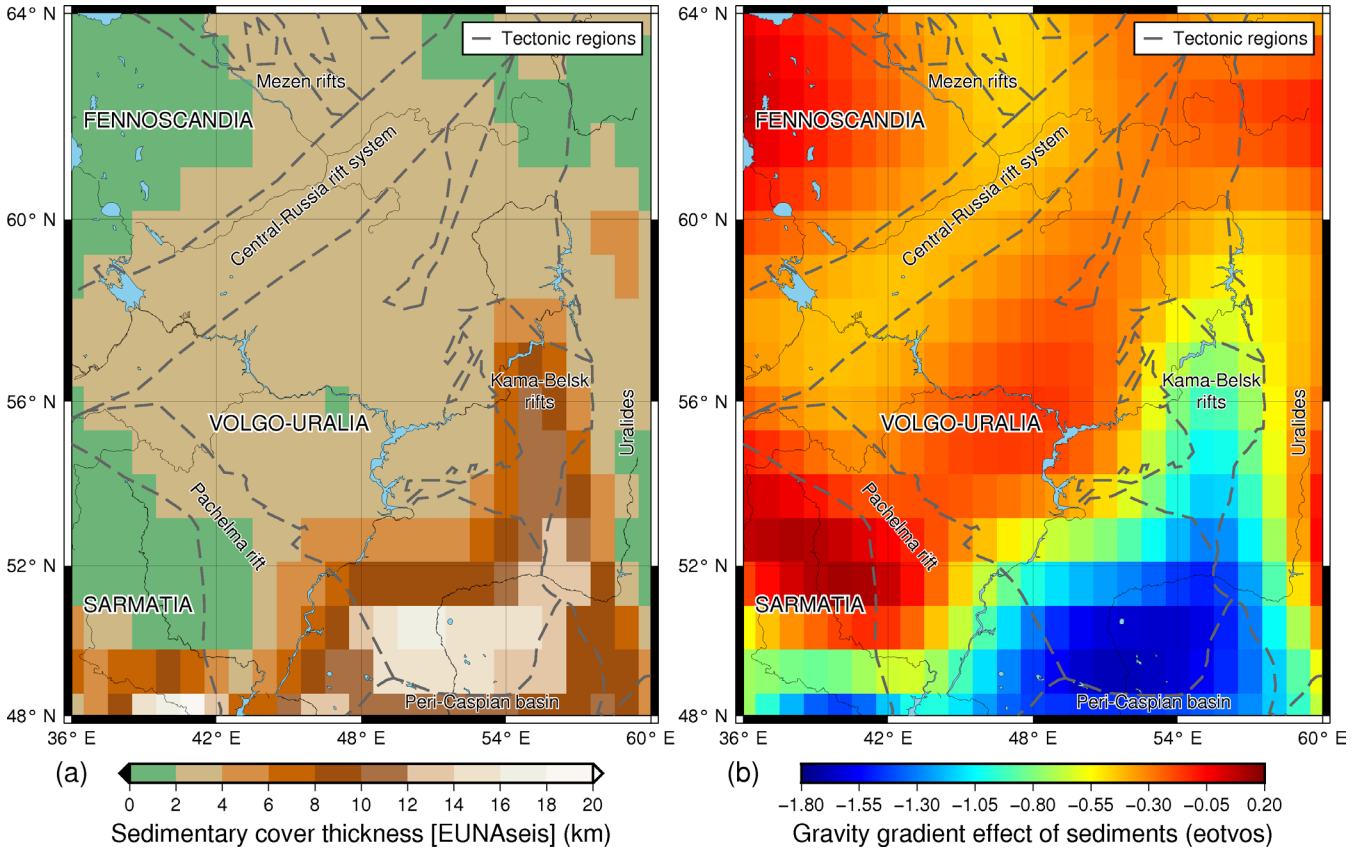

Figure S1. Sedimentary cover thickness and its gravity gradient effect. (a) Thickness of sedimentary cover taken from EUNAseis regional seismic model (Artemieva and Thybo, 2013). (b) The gravity gradient effect produced by EUNAseis sedimentary structure discretized by tesseroids.

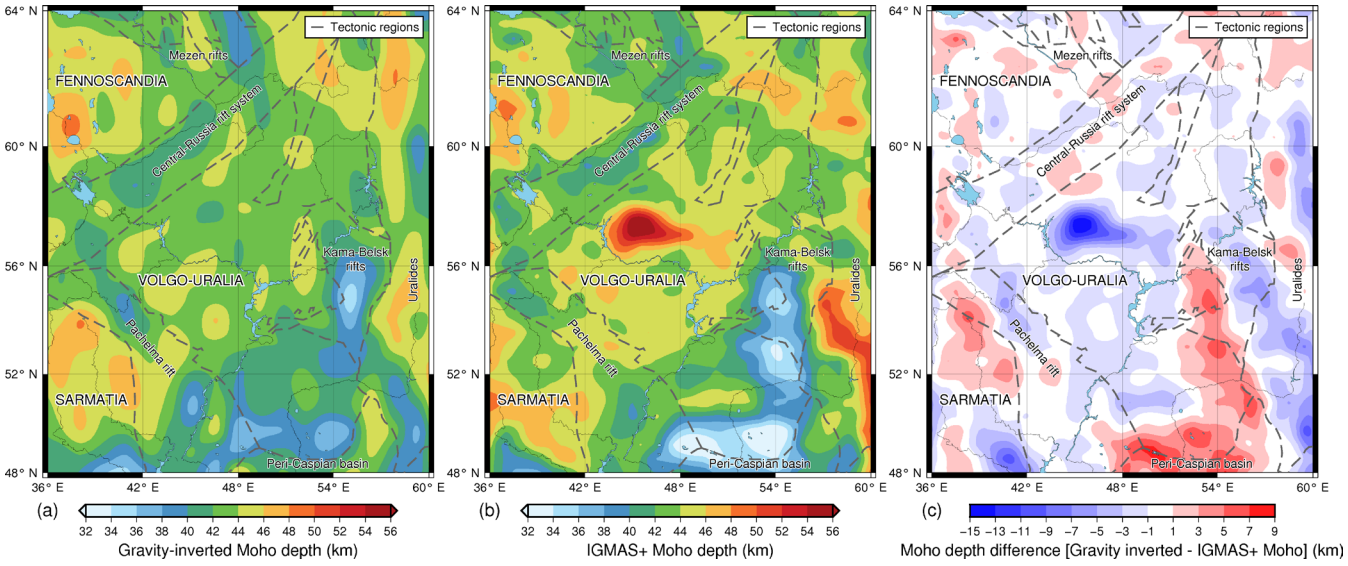

Figure S2. Comparison between the gravity-inverted and IGMAS+ Moho models. (a) Gravity-inverted Moho model obtained through the gravity gradients' inversion with laterally-variable density contrasts (Haas et al., 2020). (b) Moho model developed in IGMAS+ software with measured gravity, gravity gradients, and seismic Moho depth estimates used as constraints for the model. (c) Difference between gravity-inverted and IGMAS+ Moho depths. Two regions with the main differences are: (1) the center of the Volgo-Uralia with deeper Moho reflected in IGMAS+ model according to TATSEIS-2003 profile, and (2) South-Eastern part of the area where Peri-Caspian basin is located with relatively thin seismic Moho which is better reflected in IGMAS+ model.

References

Artemieva, I. M. and Thybo, H.: EUNAseis: A seismic model for Moho and crustal structure in Europe, Greenland, and the North Atlantic region, Tectonophysics, 609, 97–153, https://doi.org/10.1016/j.tecto.2013.08.004, 2013.

Haas, P., Ebbing, J., and Szwillus, W.: Sensitivity analysis of gravity gradient inversion of the Moho depth—a case example for the Amazonian Craton, 221, 1896–1912, https://doi.org/10.1093/gji/ggaa122, 2020.