



*Supplement of*

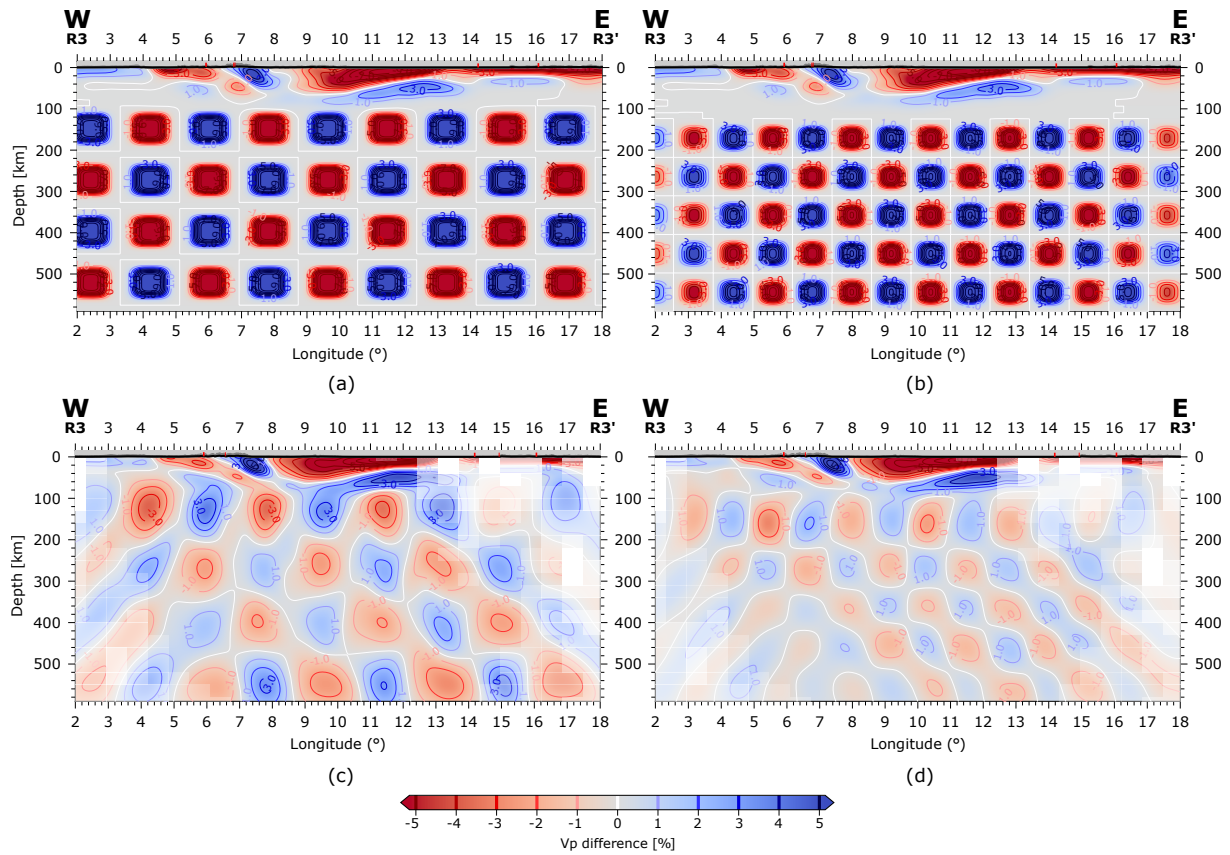
## **Imaging structure and geometry of slabs in the greater Alpine area – a P-wave travel-time tomography using AlpArray Seismic Network data**

**Marcel Paffrath et al.**

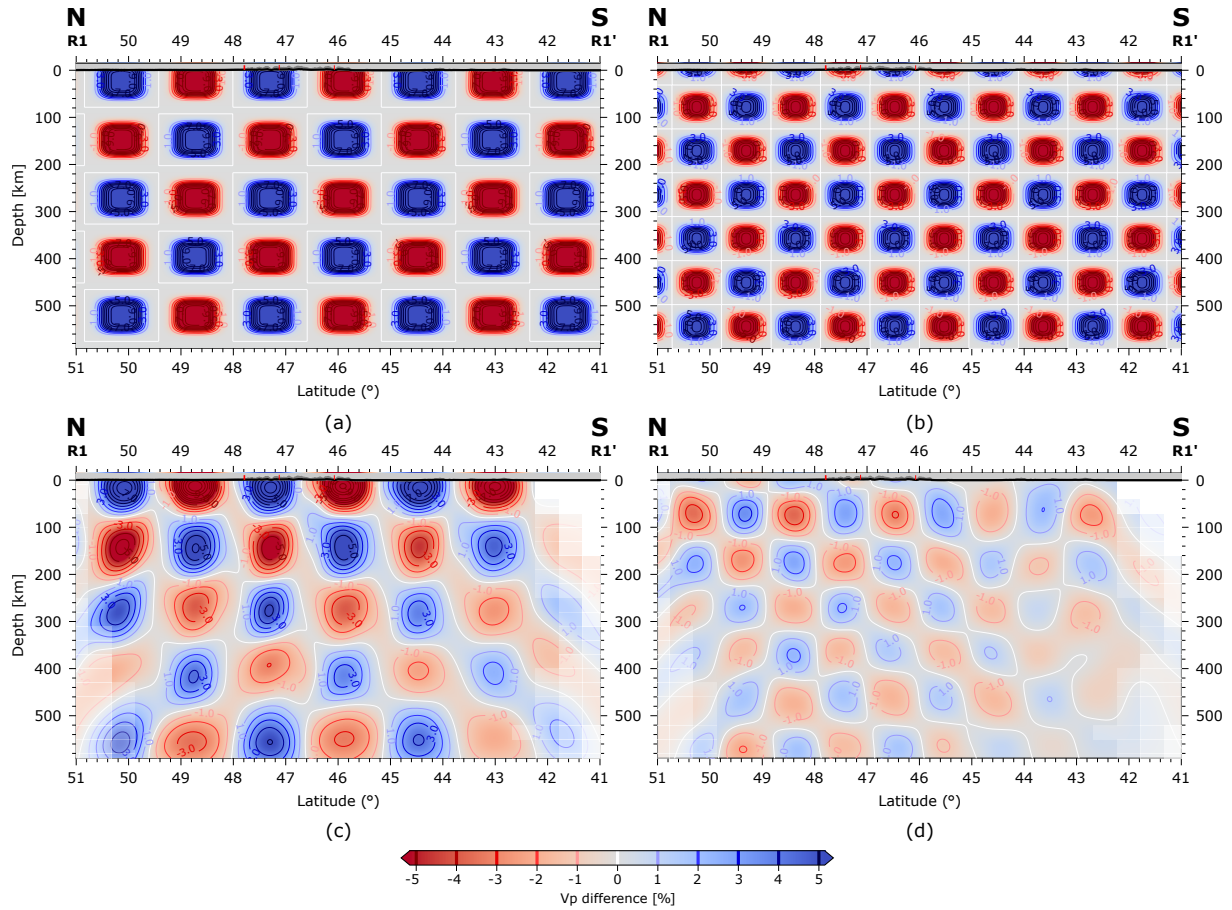
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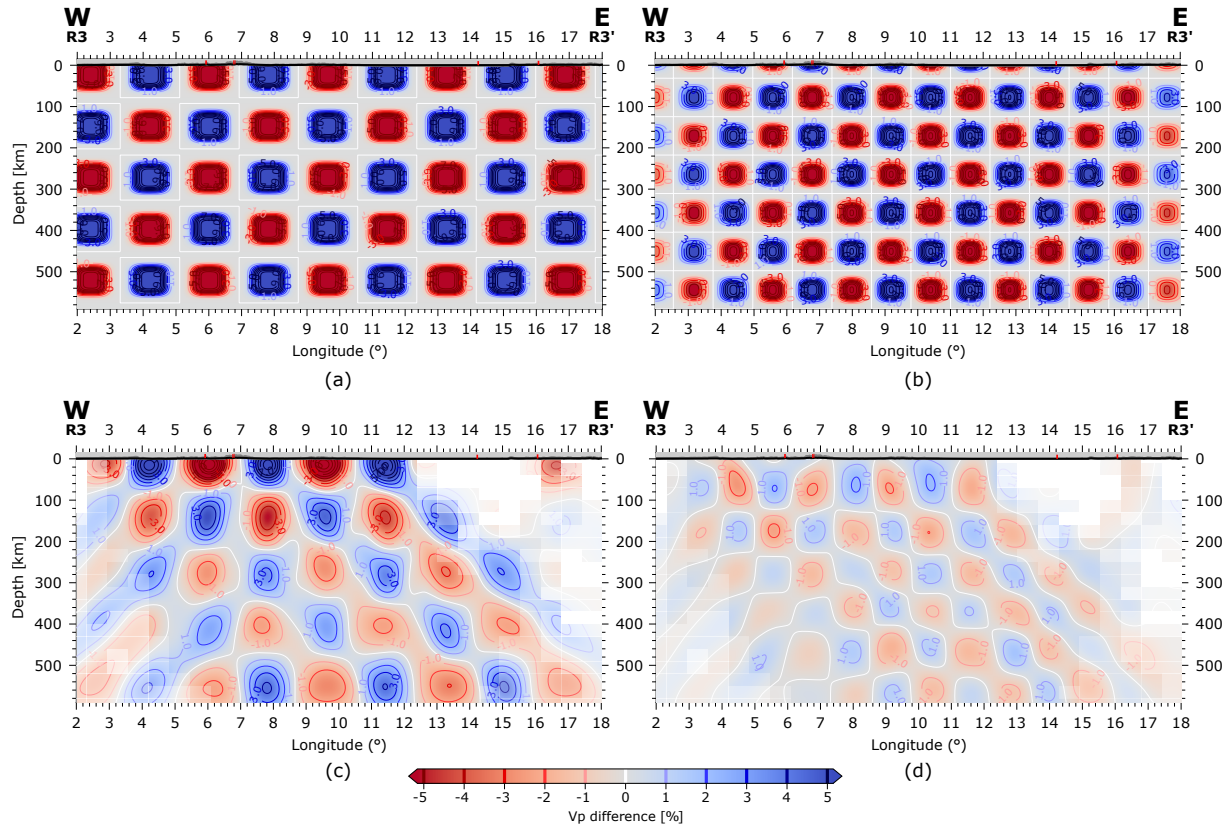
## 1 Supplementary Material



**Figure S1.** (a, b): Vertical profile through the two checkerboard test models of Fig. 7. (c, d): Test results on a great circle between  $44.3^{\circ}\text{N}$ ,  $2.0^{\circ}\text{E}$  and  $44.3^{\circ}\text{N}$ ,  $18.0^{\circ}\text{E}$ . Note the different amplitudes of the test anomalies along the profiles due to cut effects caused by the change in latitude.



**Figure S2.** Vertical profile R1 at  $11.5^\circ\text{E}$  through the two supplementary checkerboard test models with test perturbations in the crustal domain (a, b). The inversion results after 12 inversion iterations (c, d) show a good lateral resolution, also in the crustal domain. For the  $2 \times 2 \times 3$  checkerboard grid we see that even the small perturbations in the upper most 20 km can be recovered partly north of  $46^\circ\text{N}$ . However, we know that the vertical resolution in the crustal domain is not sufficient to fully reconstruct the heterogeneous crustal velocity distribution.



**Figure S3.** Vertical profile R3 as seen in Fig. 7 through the two checkerboard test models (a, b) and the test results (c, d) on a great circle between  $44.3^{\circ}\text{N}$ ,  $2.0^{\circ}\text{E}$  and  $44.3^{\circ}\text{N}$ ,  $18.0^{\circ}\text{E}$ . Note the different amplitudes of the test anomalies along the profiles due to cut effects caused by the change in latitude.