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Solid Earth
Discussions

Interactive comment on "Teleseismic P-waves at the AlpArray seismic network: Wave fronts, absolute traveltimes and traveltime residuals" *by* Marcel Heinz Paffrath et al.

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That is an interesting study.

Regarding steeply incident (e.g. vertical) wavefronts, this study is maybe of interest to compare:

https://pubs.geoscienceworld.org/ssa/srl/article-abstract/89/5/1698/531026/Reflections-from-the-Inner-Core-Recorded-during-a

It uses a reflection from the inner core on an ultra-dense network in the center of AlpArray, and corrects the arrival times for known mantle and crustal structure (fig 7).

The variations would be of interest to compare to your results, and may help with a geological interpretation.

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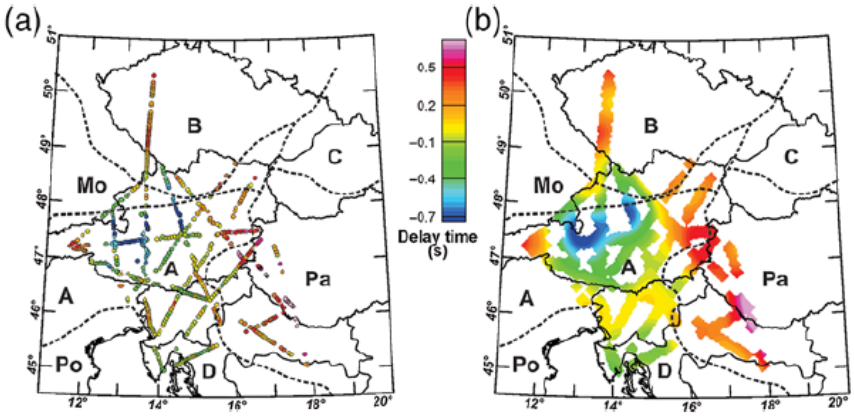

▲ **Figure 7.** Travel-time delays as picked from time-corrected *PKiKP* arrivals. Time corrections include ak135 *PKiKP* travel times and additional corrections for topography, crustal, and mantle structure (e.g., Fig. 5b). (a) Individual delay time at each station; (b) interpolated and low-pass filtered delay-time variation. Dashed black lines separate large-scale geologic/tectonic domains. A, alpine; B, Bohemian massif (Paleozoic orogenesis); C, Carpathian; D, Dinaric domains (Cenozoic orogenesis); Pa, Po, Mo, deep tertiary sedimentary basin systems (Pannonian, Po, and Molasse basins). The color version of this figure is available only in the electronic edition.

Fig. 1.