

2007 Fall Meeting  
Search Results

Cite abstracts as **Author(s) (2007), Title, *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract xxxxx-xx**

Your query was:  
**behm**

1340h

**T33A-1140****ALPASS: Teleseismic Tomography of the Eastern Alps**

\* **Brueckl, E**

*ebrueckl@mail.tuwien.ac.at*

*Institute of Geodesy and Geophysics Vienna University of Technology,  
Gusshausstrasse 27-29/1282, Vienna, 1040, Austria*

**Mitterbauer, U**

*umitterb@mail.tuwien.ac.at*

*Institute of Geodesy and Geophysics Vienna University of Technology,  
Gusshausstrasse 27-29/1282, Vienna, 1040, Austria*

**Lippitsch, R**

*lippitsch@mail.tuwien.ac.at*

*Institute of Geodesy and Geophysics Vienna University of Technology,  
Gusshausstrasse 27-29/1282, Vienna, 1040, Austria*

**Behm, M**

*mbehm@mail.tuwien.ac.at*

*Institute of Geodesy and Geophysics Vienna University of Technology,  
Gusshausstrasse 27-29/1282, Vienna, 1040, Austria*

**Working Group, A**

*ebrueckl@mail.tuwien.ac.at*

The Eastern Alps were formed by the north-south directed collision of the Adriatic (African) and European plates and a subsequent tectonic escape of crustal fragments to the unconstrained margin in the east, represented by the Pannonian Basin. Recent controlled source seismic experiments (TRANSALP, CELEBRATION 2000, and ALP 2002) revealed significant internal structures of the crust and the Moho topography. However, deeper plate tectonic structures (e.g. subducting slab) are still under debate. ALPASS is a passive seismic monitoring project aiming to reveal lower lithosphere and upper mantle beneath the wider Eastern Alpine region, and to contribute to a better understanding of the geodynamic processes at work. By cooperation of Austria, Croatia, Finland, Hungary, Poland, and USA 57 temporary seismic recording stations were deployed from May 2005 until May 2006. The layout was designed to extend the efforts of earlier experiments (e.g. TRANSALP) and to support two other passive seismic experiments (BOHEMA, Carpathian Basin Project), which are overlapping in the investigation area. Additionally, data from permanent networks was collected to improve coverage of the investigation area. 144 events (50% with  $M > 5.6$ ) from epicentre distances between  $30^\circ$  and  $100^\circ$  were selected for teleseismic inversion. Travel time picking of P-wave arrivals has been done by a semi-automatic correlation technique. Crustal corrections benefit from the high resolution velocity model of the crust and the new Moho map derived from CELEBRATION 2000 and ALP 2002 data. First results of teleseismic inversion will be presented and discussed with respect to crustal structures revealed by the controlled source experiments, tomographic models generated during earlier studies, and their

consequences for the conception of plate tectonics in the Eastern Alps.

7218 Lithosphere (1236)

7270 Tomography (6982, 8180)

Tectonophysics [T]

2007 Fall Meeting

---

[New Search](#)

