

SEISMIC VELOCITY STRUCTURE IN THE EASTERN ALPS ALONG THE TRANSALP PROFILE

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The state of knowledge of the seismic velocity structure in the eastern alps is based essentially on refraction seismic measurements from the 60ies and 70ies. Huge charges and large observation distances resulted in 70 km deep models, but due to only few observations with low resolution. During the TRANSALP experiment explosion and vibroseis signals had been recorded in an area between Munich and Venice by a network of up to 128 three-component stations. At some stations the vibroseis signal can be observed in distances of almost 100 km. Tomographic inversion of the travelttime information of the first breaks results in a high resolution image of the upper crust, which is well correlat-

ed with several geological features along the profile. Strong anisotropy in the upper crust in and around the Tauern Window with the fast axis oriented EW indicates dominant strain in this direction. Constraints on model refinement at deeper crustal levels is provided by explosion seismic wide-angle reflections recorded in up to 180 km offset.

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