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TALK:

Seismic Anisotropy Across the Plate Boundary in the Eastern Alps

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The type of collision between the European and the Adriatic plates in the easternmost portion of the Alps is one of the most interesting questions regarding the Alpine evolution. We investigate the structure in the Eastern Alps, where the crustal thickness has been poorly investigated by passive seismic methods in the past. Thanks to the availability of data from a temporary seismic network (ALPASS) and together with the Austrian permanent network, details about the crustal structure in this area are emerging. A Receiver Function data-set has been created to detect the depth of the Moho interface along a N-S profile from the Bohemian Massif to the Adriatic Sea, crucial for understanding the dynamics of the easternmost portion of the Alps. We observe a seismically anisotropic layer on top of the Adriatic Moho. This layer continues from the Adriatic Sea to one of the major tectonic lines of the area, the SEMP fault, opening new questions on the deep plate boundary between Adria and Europe.