Solid Earth

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Supplement of

Seismicity and seismotectonics of the Albstadt Shear Zone in the northern Alpine foreland

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Supplement

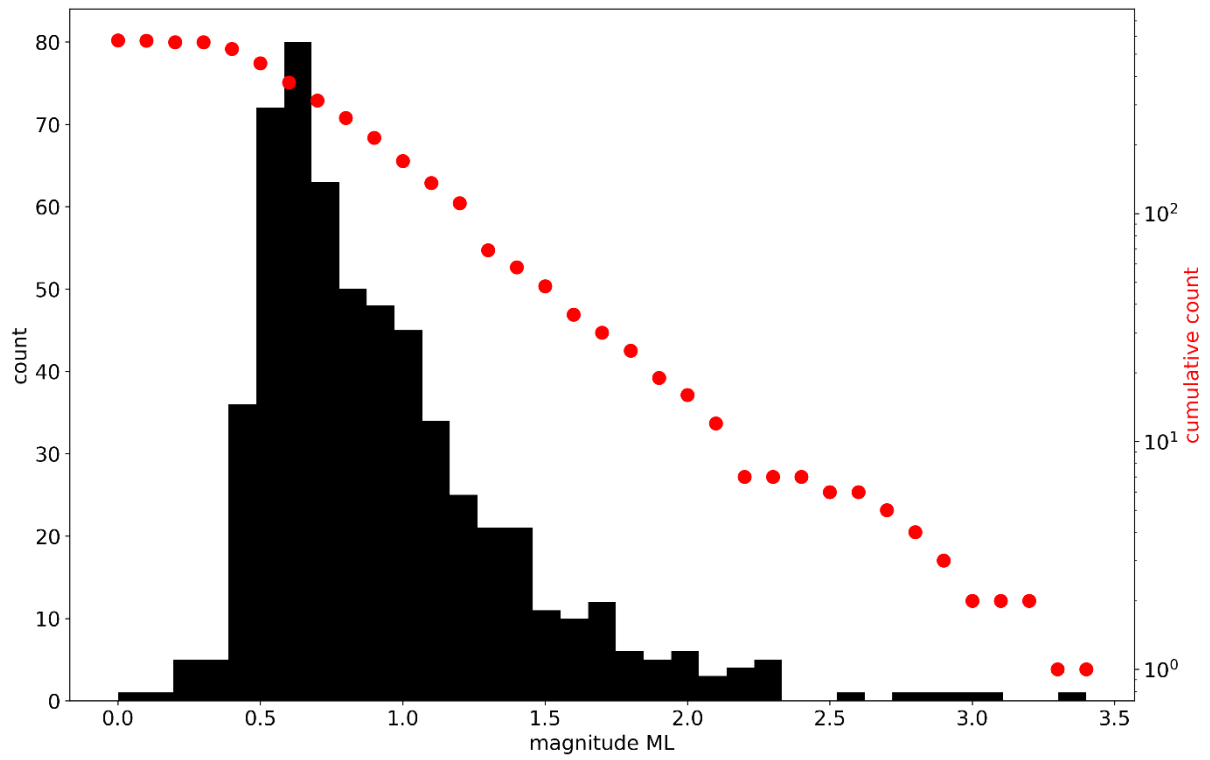**Fig. S1 Frequency-magnitude distribution. The magnitude values are taken from the LED catalog, these are well determined (±0,2 units). The cumulative counting from high to low magnitudes implies a magnitude of completeness of about 0.6.**
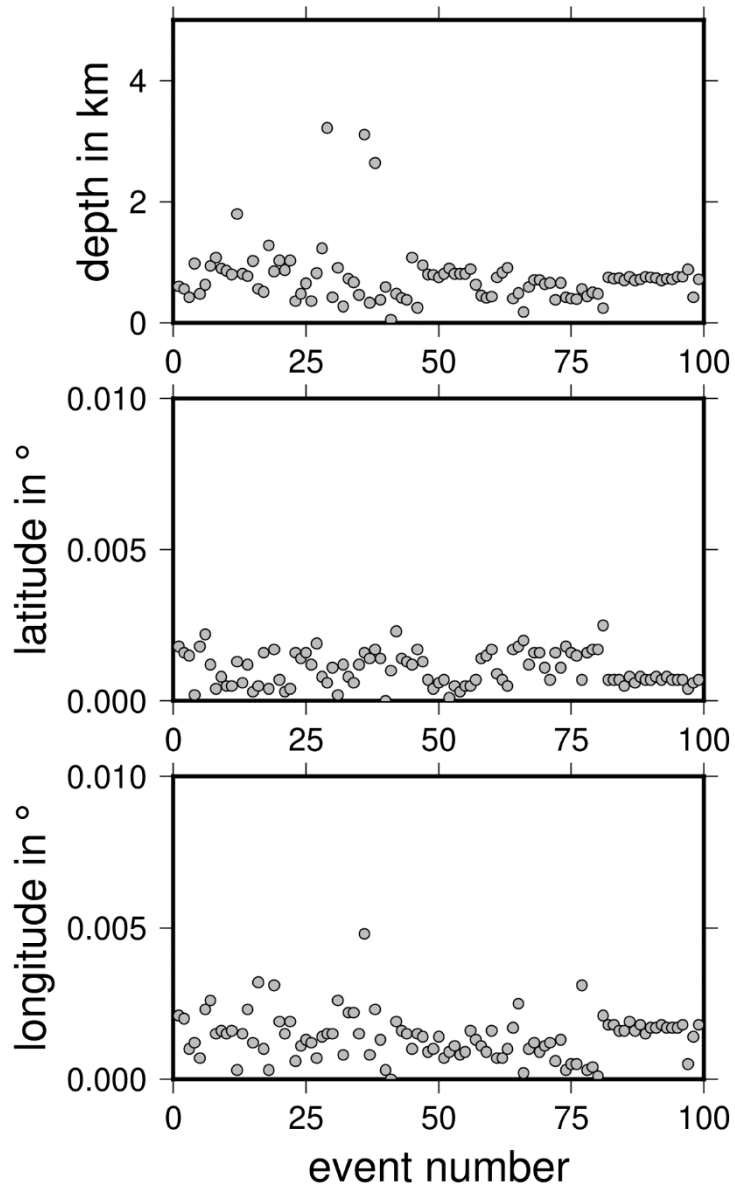
Fig. S2 Deviation of hypocenter locations after the shift test with VELEST.
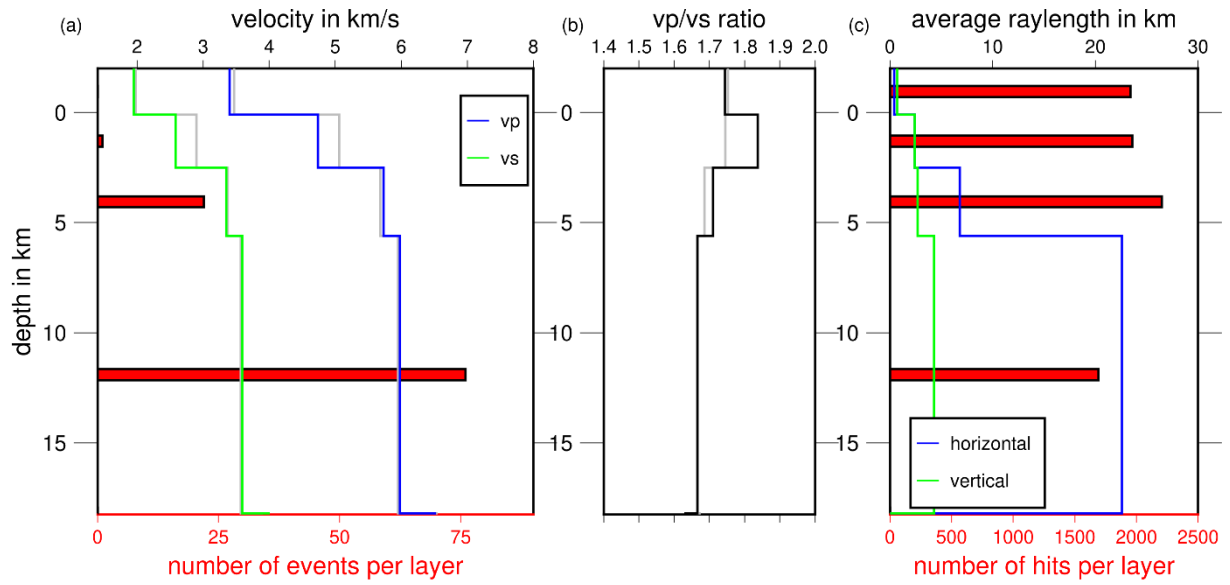
Fig. S3 a) Velocity models after the shift test (green and blue). Grey lines represent input model ASZmod1. Red bars are scaled with the number of events in each layer of the velocity model.

b) *vp/v*-ratio after the shift test.

c) Ray statistics of used ray paths. Red bars display number of hits per layer. Blue and green line give the average horizontal and vertical raylength.
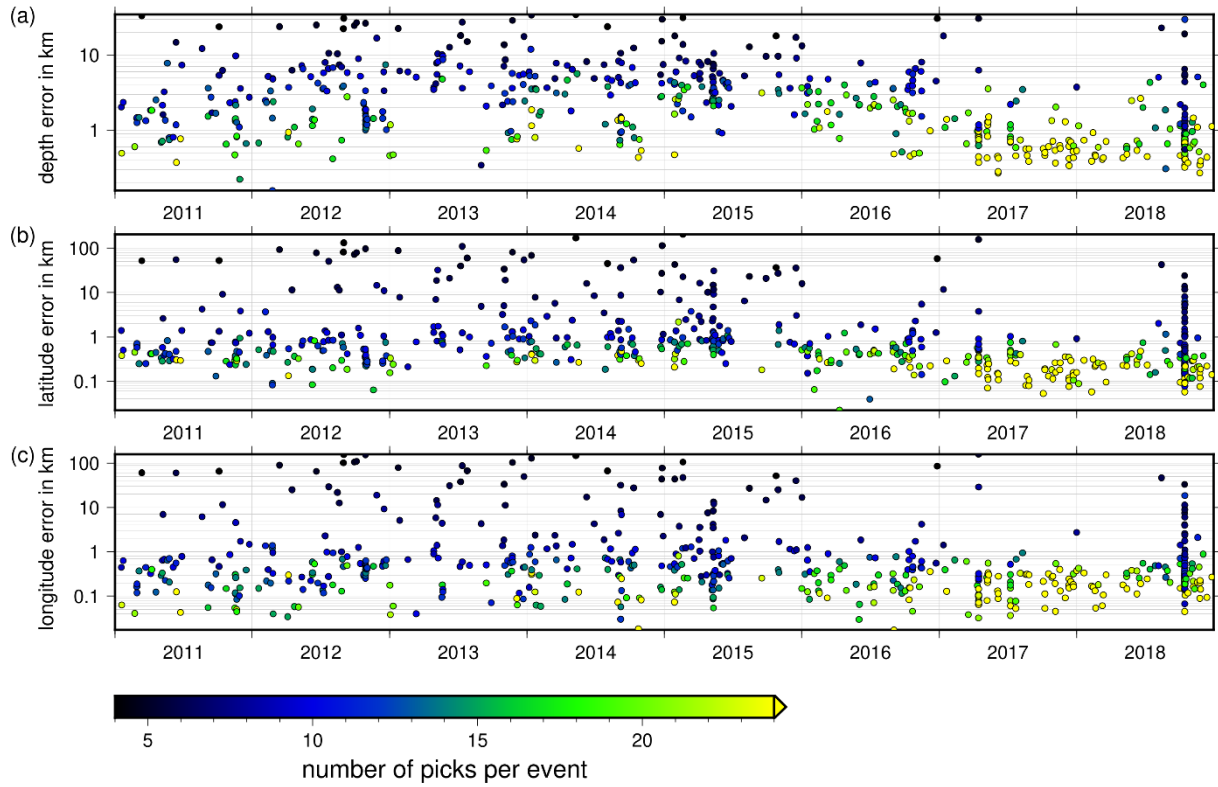
Fig. S4 Errors calculated from the 68% confidence ellipsoid from NLL with EDT for each event in the catalog for (a) depth, (b) latitude, and (c) longitude. The error values are color-coded with the number of picks, with dark colors indicating few picks and bright colors indicating many picks. Earthquakes with many observations can be located with smaller errors in depth and horizontally.
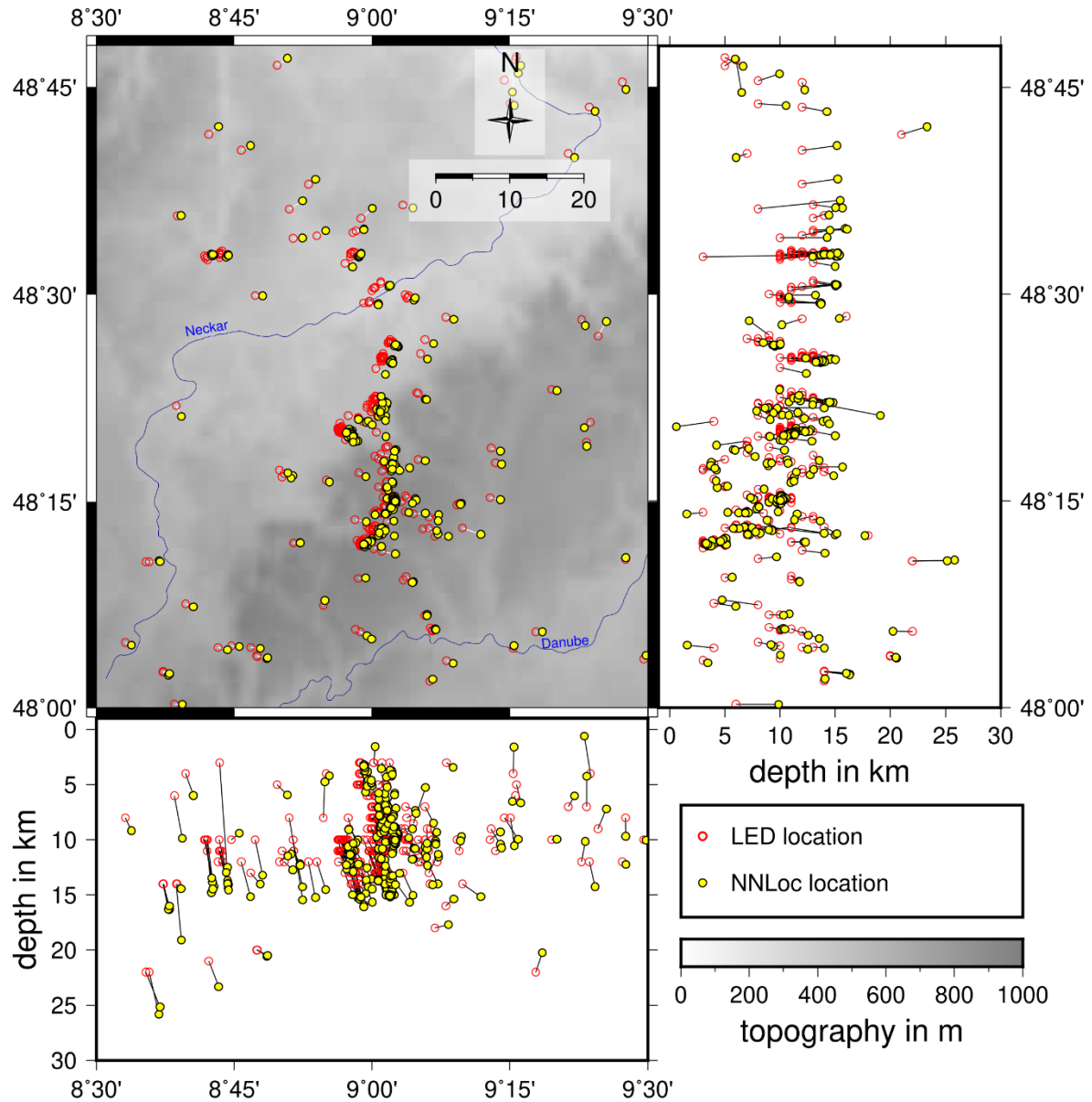
Fig. S5 Comparison of our well located events (yellow filled circles with more than eight travel time picks, a GAP smaller than 180°, a horizontal error estimate of less than 1 km, and a depth error of less than 2 km) with the LED routine event locations (red circles). For some events there is a large deviation in depth. Topography is based on the ETOPO1 Global Relief Model (Amante and Eakins, 2009).
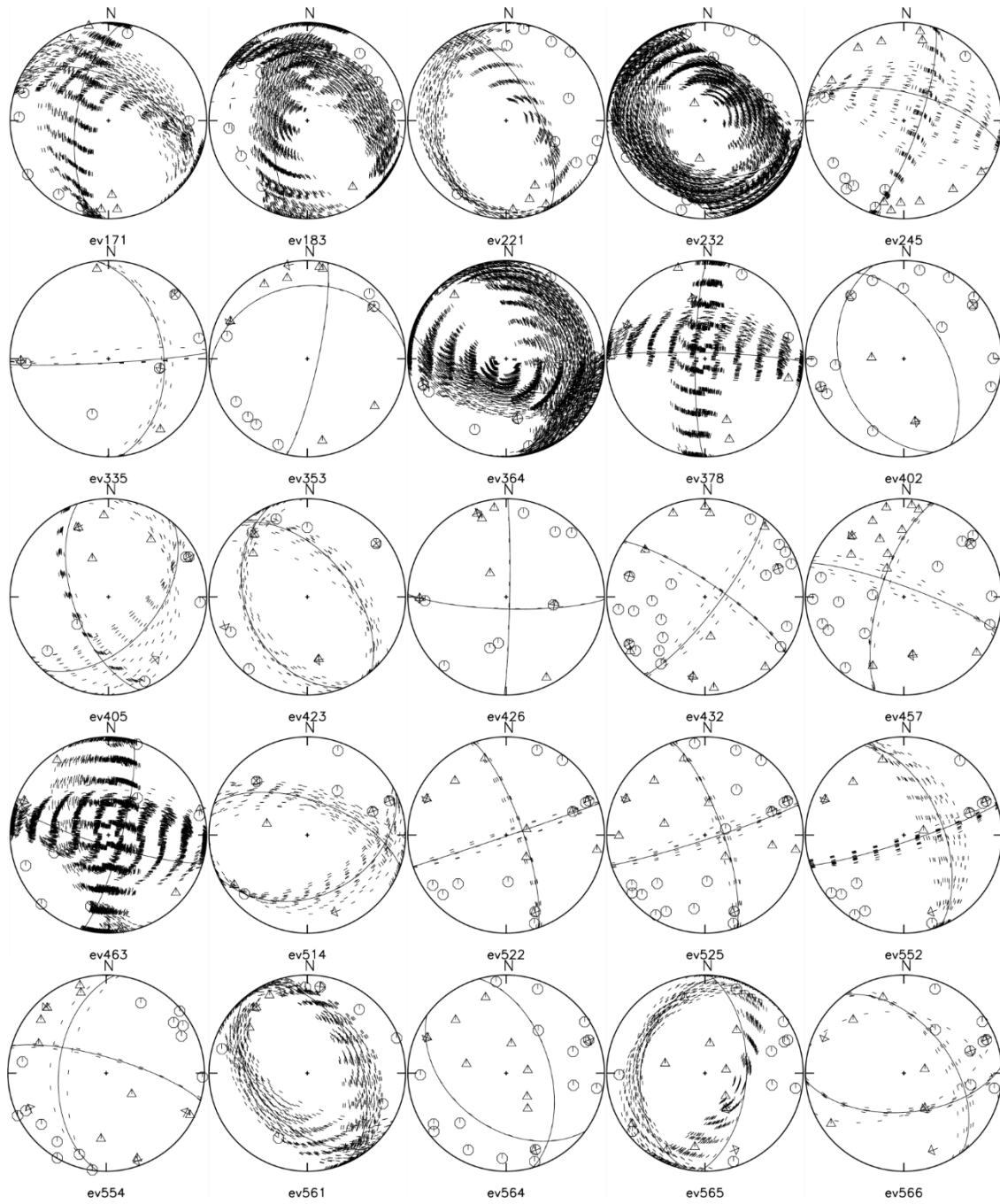
Fig. S6 All fault plane solutions with preferred (solid line) and all possible solutions (dashed lines). Triangles are negative and hexagon positive polarities. Arrows show in direction of SH-polarity. Fault plane solutions are labeled with their ID in Table 2.