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## ***Interactive comment on “Mantle lithosphere transition from the East European Craton to the Variscan Bohemian Massif imaged by shear-wave splitting” by L. Vecsey et al.***

**L. Vecsey et al.**

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for the reply see supplement

Please also note the supplement to this comment:

<http://www.solid-earth-discuss.net/6/C567/2014/sed-6-C567-2014-supplement.pdf>

Interactive comment on Solid Earth Discuss., 6, 229, 2014.

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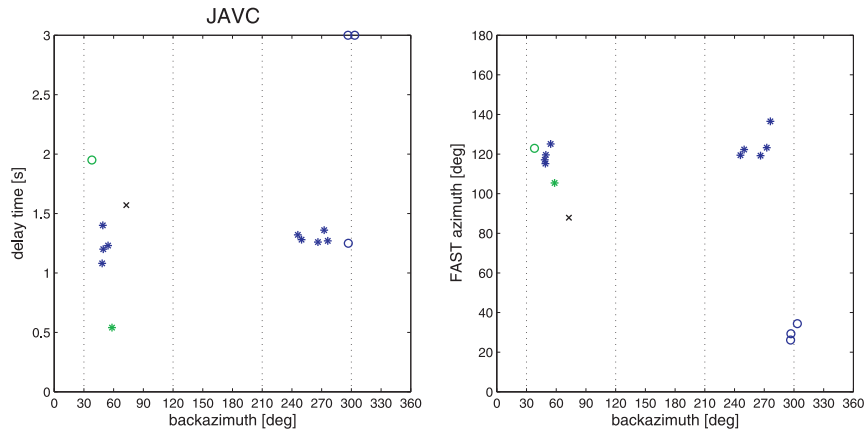


Fig. 1.

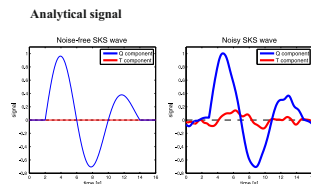
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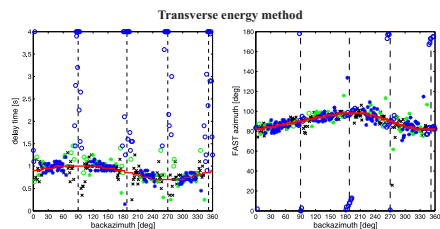




Analytical SKS signal as a damped sinusoid with a dominant period  $T=8s$ . The energy is only in Q component for noise-free SKS wave in isotropic medium (left panel).

White noise of S/N ratio equals to 10 and after filtering by a bandpass filter with a centre in 8s is added to all signal components (right panel). Finally, we apply a rotation of the signal in the LOT coordinate system into the geographical NEZ coordinate system, with incidence angle  $8^\circ$  and back-azimuths covering interval  $0-360^\circ$ .

Anisotropy model: with FAST symmetry axis rotated to the azimuth  $\phi=90^\circ$  and incidence angle  $\theta=45^\circ$ . Thickness of the anisotropy layer is 100km.



Quality conditions (by Wuestefeld & Bokelmann, 2007)

- \* good splitting
- \* fair splitting
- x poor splitting
- o good null
- o near null

red line - theoretical values  
dashed vertical lines - backazimuths for which the SKS wave stays linear after passing an anisotropy layer (see the right panel)

Fig. 2.

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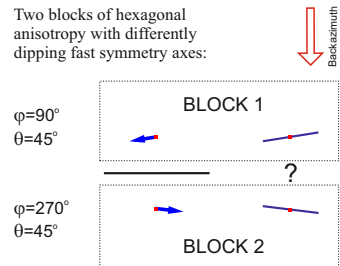


Fig. 3.

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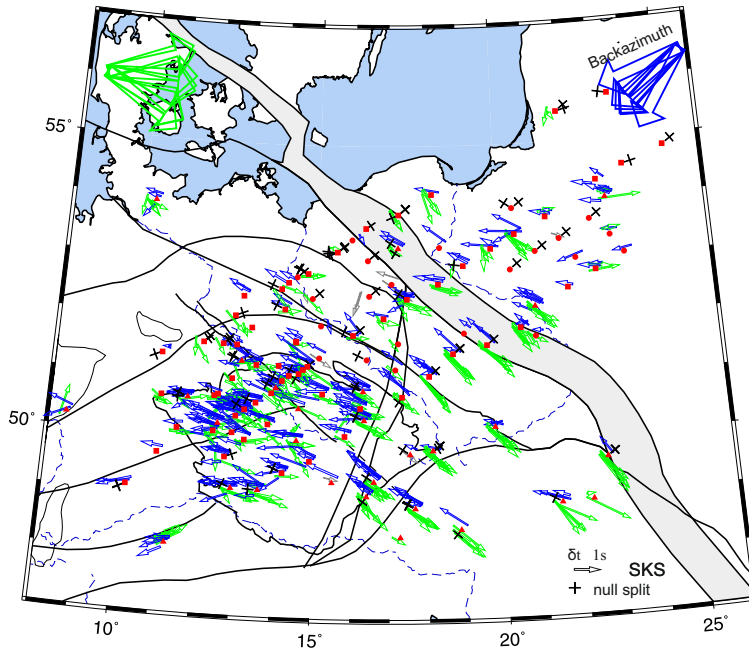


Fig. 6

Fig. 4.

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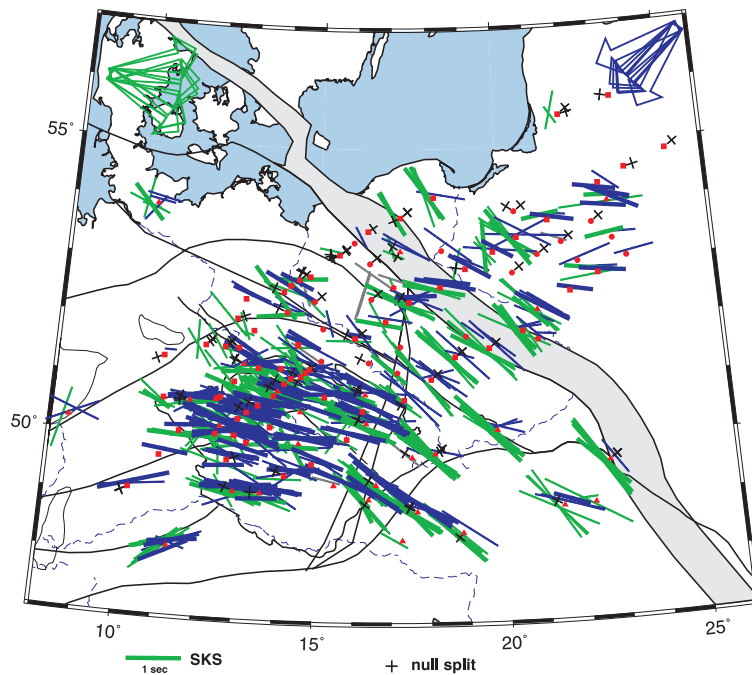


Fig. 5.

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