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## Crust-Mantle Kinematics in and around the Hellenic Arc Elucidated by Local Shear Wave Splitting and Receiver Function Analyses

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The fundamental knowledge on seismic anisotropy inferred from various data sets can enhance our understanding of its vertical resolution that is critical for a better interpretation of past and current dynamics and resultant crustal and mantle kinematics in the Hellenic Trench and its hinterland. To investigate the nature of deformation zones, we perform both local S-wave splitting (SWS) measurements and receiver functions (RFs) analysis. Our preliminary findings from the harmonic decomposition technique performed on radial and tangential RFs suggest relatively more substantial anisotropic signals in the lower crust and uppermost mantle with respect to upper and middle crustal structure in the region. Apparent anisotropic orientations obtained from RFs harmonic decomposition process show several consistencies with those discovered from local SWS measurements at selected stations. The actual anisotropic orientation for the structures, however, requires further modelling of the receiver functions obtained.