



## **A sharp Moho step under Central and Eastern Betics, Western Mediterranean region**

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Previous geophysical studies in the northern limit of the western Mediterranean region have showed that the Iberian crust understruts the Alboran domain under its contact with the External zones. They observe the presence of slab-type feature of Iberian lithosphere at the western Betics and interpret tearing and delamination of this Iberian slab at central and eastern Betics. To map the variations of the lithospheric structure between the different geological domains under central and eastern Betics, we deploy two dense seismic profiles ( $\sim 120$  and  $\sim 160$  km length). The spacing between stations, around 2-3 km, allows mapping with high accuracy variations of the crustal structure. By interpreting P-receiver functions, we observe sharp Moho steps of  $\sim 15$ - $17$  km underneath the Internal zones (Alboran domain) at both profiles. The images suggest that the Iberian crust understruts the more deformed Alboran crust and terminates sharply under the contact between the Alpujarride and the Nevado-Filabre complexes (Alboran domain). The thickness of the Iberian crust near the edge,  $\sim 17$  km, and its position along the contact suggest that the breaking of the Iberian slab occurs in the transitional crust of the Iberian Paleomargin.