



## **Transform margin of the northern Levant, eastern Mediterranean: From formation to reactivation**

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The Levant continental margin, eastern Mediterranean, is usually defined as a passive margin that developed between the late Paleozoic-early mid-Mesozoic. Previous studies suggest that the margin is composed of two segments with different structural characteristics. The southern segment (south of the Carmel Structure) was formed by rifting, whereas the origin of the northern segment is not known. The present study focuses on the northern segment, which is a key for understanding the tectonic history of the eastern Mediterranean. Investigation is carried out offshore on two scales: (1) deep crustal observations, analysis of seismic refraction and magnetic data and their comparison with other continental margins worldwide; and (2) shallow crustal-scale observations of recent tectonic deformations, based on multichannel and single-channel seismic reflection profiles. Integration of the deep and shallow observations with reevaluation of geological data onland show strong structural resemblance between the northern Levant segment and other transform margins. A modified scenario is suggested for the formation and development of the Levant basin and its margins, combining all previous studies into one simple picture, where a signature of older structures on more recent features is evident. Located in the midst of the progressive Afro-Eurasian collision, the northern Levant presents a unique evolution for transform margins worldwide, from formation to reactivation.