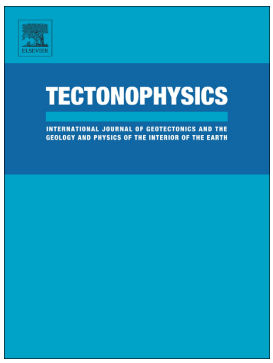

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PROPAGATION AND TERMINATION OF A STRIKE SLIP FAULT IN AN EXTENSIONAL DOMAIN: THE WESTWARD GROWTH OF THE NORTH ANATOLIAN FAULT INTO THE AEGEAN SEA

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ABSTRACT

Geometry and kinematics of the active submarine faults over the North Aegean Trough, a complex and highly deforming boundary zone between the Eurasian and the Anatolian/Aegean micro-plates, were examined to investigate how a strike slip motion propagates through an extensional domain. The bathymetric and seismic reflection data analysis show, that the investigated area is affected from east to west, by three sets of active faults striking ENE-WSW, NE-SW and WNW-ESE. The ENE-WSW and NE-SW striking faults are right lateral strike slip faults and are considered strands of the northern branch of the North Anatolian Fault into the north Aegean Sea. The former set bounds the Saros basin and the latter set occupies the eastern and central part of the Sporades basin in the eastern and western parts of the North Aegean Trough, respectively. The WNW-ESE striking