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ABSTRACTS



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Co-existence of E-W and NE-SW neotectonic structures in Messara basin, central Crete

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A detailed neotectonic study of the Messara basin in Central Crete showed the existence of two major neotectonic trends in the E-W and the NE-SW directions.

Additionally to classical geological field work, remote sensing and G.I.S. techniques were applied (SPOT-XS, SPOT-PAN, DEM). The result of these techniques was a three-dimension image of the Messara basin, which helps to understand better the overall structure and to locate areas of special interest.

The E-W direction is controlling the major neotectonic graben-structure of the Messara basin between the outcrops of the Alpine basement of Idi mt. to the north and Asteroussia mt. to the south.

The NE-SW direction is observed mainly within the sedimentary successions of the Messara basin, which are mainly of upper Miocene - Quaternary age.

The relation of the above E-W and NE-SW structures of Messara to the structures in Iraklion basin to the north and to the other neighboring structures as well as the development of some structures, primarily within the alpine basement, provide some arguments about the possible changes of the neotectonic activity in the area, following the changes in the subduction process of the African plate south of Crete since Late Miocene.