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Ganos Fault Zone network: Imaging North Anatolian Fault Zone in the western Marmara region, Turkey, based on a dense local seismic network

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The Ganos fault has been activated in a M7.4 event in 1912 and is believed to be a first-order linear and vertical fault that is currently locked down to ∼15 km depth. A 40-station seismic network has been deployed in September 2017 at the northeastern part of the Ganos Fault to study the fault-zone geometry at depth. The station layout comprises a higher station density on top of the fault core/damage zone as well a larger inter-station distance away from the fault in different azimuths to ensure both high-resolution fault- zone imaging and good azimuthal coverage for locating local seismic events. Having a network across the fault is an efficient tool to gain a high resolution image of the fault at depth for example by using signals such as fault zone head waves to explore bimaterial interfaces across the fault. First results of the waveform analysis from this network will be presented and discussed.