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Development of Tsunami Simulation Structure for Tsunami Warning System in Turkey

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Bogazici University, Kandilli Observatory and Earthquake Research Institute (KOERI) is planned to function as one of the Regional Tsunami Watch Centers foreseen by the Intergovernmental Coordination Group for the Tsunami Early Warning and Mitigation System in the North-eastern Atlantic, the Mediterranean and connected seas (ICG/NEAMTWS). The determination of the sources of the tsunamis is one of the important issues in a tsunami warning system. Eastern Mediterranean has experienced many earthquakes and tsunamis in history. The active faults and their possible rupture characteristics are examined. The possible tsunamigenic sources which may be effective in Eastern Mediterranean basin are determined.

The study domains considering different sources and target areas are selected. A series of simulations are performed using the selected sources in the selected domains. The propagation and coastal amplification of tsunamis are assessed to constitute a knowledge-base for the planned tsunami watch system. The current developments in the tsunami watch center, its communication with seismic network of KOERI and future studies are discussed.

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