

Active Tectonics of the Eastern Mediterranean Region: Destructive Earthquakes and Potential Source Regions and Tsunami Generation

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The presentations and discussion will focus on both the geological information about faults and the geophysical information about earthquake mechanisms. Contributions from geologists and geophysicists, highlighting application of inversion to reconstruct deformation and stress fields during the present-day (earthquakes) or the geological periods (faults and other brittle structures) are thus welcome.

On the other hand, there is a long record of tsunami occurrences and damaging tsunamis have been observed repeatedly in the oceans and seas. The sources of tsunamis are still active and tsunamis are expected to occur in the future. Tsunamis could be even more catastrophic than past events, due to steadily growing occupation of the coasts for the economic development of the coastal countries in the last fifty years. Protection from natural disasters and mitigation of their effects on environment and societies are becoming more important issues all over the world. There have been many destructive earthquakes in the Mediterranean region throughout the recorded history and many of them are rather well documented and studied. The understanding the geometry and evolution of potential source (seismogenic) regions and the source rupture processes along the main fault zones have very important implications on the Tsunami generation.

Thus, this session invites contributions (both oral and in posters) that will stimulate discussions on the active tectonics, seismotectonics, current earthquake activity, volcanic eruptions and landslides as the potential causes of tsunami phenomena in the region. It is also aimed that this session will promote and initiate further tsunami research in the Mediterranean Sea countries. The conveners strongly encourage participants to discuss the data collection, the inversion methods, their regional application and the tectonic and seismotectonic syntheses and implications.