

ORAL SESSIONS

Monday 8 October 2012

09:00 – 11:30

OPENING SESSION

09:00 – 09:30 **Registration**

09:30 – 10:00 **Opening speeches**

10:00 – 10:45 **The North Anatolian Fault Today**
Sengör, A.M.C.

10:45 – 11:30 **Marmara pull-apart: tectonic evolution & large earthquakes**
Armijo, R., Çakır, Z., Pondard, N., Uçarkuş, G., Karakaş, C., Suc, J.-P. Meyer B.

11:30 – 13:00 Lunch Break

Monday 8 October 2012

13:00 – 15:00

The 9 August 1912 Earthquake

Convenors: *Aksoy, M. E. and Çakır, Z.*

13:00 – 13:20 **The 9 August 1912 Mürefte Earthquake**

Aksoy, M.E., Meghraoui M., Çakır, Z., Batlló, J.

13:20 – 13:40 **Contribution to the study of the source of the 1912 Mürefte earthquakes from the analysis of contemporary seismograms**

López Comino, J. A., Aksoy, M. E., Stich, D., Batlló, J., Meghraoui, M.

13:40 – 14:00 **Onland slip distribution of the 9 August 1912 earthquake**

Altunel, E., Barka, A.A., Akyüz, H.S., Meghraoui, M., Dikbaş, A.

14:00 – 14:20 **Geology and seismotectonics of the Gulf of Saros (NE Aegean Sea), along the North-Anatolian Fault system**

Gasperini L., Aksoy M. E., Polonia A., Meghraoui M., Del Bianco F., Ülgen U. and the MARMARA2011 cruise party

14:20 – 14:40 **The earthquake sedimentary record in the the Sea of Marmara, Turkey**

Hubert-Ferrari, A., Drab, L., Schmidt, S., Carlut, J., ElOuhabi, M., Martinez, P.

14:40 – 15:00 **Tsunami potential of the 1912 Mürefte earthquake (M 7.4) in the Sea of Marmara; North Anatolian Fault, Turkey**

Baptista, M. A., Aksoy, M. E., Ferreira, H., Uçarkuş, G., Miranda J.M., Gasperini, L., Meghraoui, M.

15:00 – 15:20 - Coffee Break & Posters

Monday 8 October 2012

15:20 – 18:00 Discussions on the Sea of Marmara & Northern Aegean Sea Regions

Conveners: Altunel, E. and McHugh, E.

- 15:20 – 15:40 Tectonic events responsible for shaping the Sea of Marmara and its Surrounding Region**
Görür N., Elbek, S.
- 15:40 – 16:00 Geomorphological analysis of submarine fault scarps: Implications for the tectonic evolution of the Sea of Marmara pull-apart (NAF).**
Pondard, N., Armijo, R., Meyer, B., Mercier de Lepinay, B., Uçarkuş, G.
- 16:00 – 16:20 Analysis of the micro-earthquake activity in the Western Marmara Sea based on data from 2006 to 2012**
Pabuçcu Z., Tan O., Yörük A., Açıkgöz C., Sevim F., Ergintav S., İnan S.
- 16:20 – 16:40 Kinematic features, fault segmentation and historical earthquakes of the Ganos Fault**
Yalıtrak C., Alpar, B., Altınok Y., Elitez, İ., Tur, H., Kiyak, N., Zabıcı C.

16:40 – 17:00 - Coffee Break

- 17:00 – 17:20 Estimates of the shear at the west edge of the North Aegean Trough from historical triangulation data**
Stiros, S., Moschas, F.
- 17:20 – 17:40 Fault interactions in the Sea of Marmara pull-apart (North Anatolian Fault): earthquake clustering and propagating earthquake sequences**
Pondard, N., Armijo, R., King, G.C.P., Meyer, B., Flerit, F.
- 17:40 – 18:00 Archaeological Evidence for Late-Holocene Fault Rupture Characteristics of the North Anatolian Fault in Hersek Peninsula, Izmit Bay, Turkey**
Kozacı Ö., Altunel E., Clahan K., Şimşek O.

Tuesday 9 October 2012

09:00 – 12:40 Active Tectonics along the North Anatolian Fault

Conveners: Karabulut, H. and Ergintav, S.

- 09:00 – 09:20** **Frictional strength of seismogenic layer along North Anatolian Fault Zone: new insights by combining thin-sheet modelling and elastic thickness variability**
Özeren, M.S., Klein, E.C., Postacioglu, N.
- 09:20 – 09:40** **What controls the location where large earthquakes nucleate along the North Anatolian Fault ?**
Bouchon, M., Karabulut, H., Schmittbuhl, J., Durand, V.
- 09:40 – 10:00** **Fault weakening and onset of aseismic creep on strike-slip faults**
Çakır, Z., Ergintav, S., Özener, H., Doğan, U., Akoğlu, A. M., Meghraoui, M., Reilinger R.
- 10:00 – 10:20** **Detection of creeping around İsmetpaşa section of the North Anatolian Fault using geodetic data**
Çetin, E., Çakır, Z., Doğan, U., Akoğlu, A.M., Özener, H., Ergintav, S., Meghraoui, M.
- 10:20 – 10:40** **Creep Rate along the İsmetpaşa Segment of the North Anatolian Fault inferred from 7-years GPS Observations**
Özener, H., Ergintav, S., Doğan, U., Çakır, Z., Dogru, A., Turgut, B., Yılmaz, O., Halıcıoğlu, K., Sabuncu, A., Havazlı, E.

10:40 – 11:00 Coffee Break & Posters

Conveners: Çağatay, N. and Akyüz, M.

- 11:00 – 11:20** **Variation of slip rate and locking depth along the eastern section of the North Anatolian Fault deduced from InSAR and GPS observations**
Çakır, Z., Çetin, E., Ergintav, S., Tatar, O., Akoğlu, A. M.
- 11:20 – 11:40** **Present-day strain distribution across a segment of the central bend of the North Anatolian fault zone from a Persistent Scatterers InSAR analysis of the ERS and Envisat archives**
M. Peyret, F. Masson, H. Yavasoglu, S. Ergintav, R. Reilinger
- 11:40 – 12:00** **Characteristics of the active deformation zone within the central convex bend of the North Anatolian Fault**
Erturaç, M.K.
- 12:00 – 12:20** **Characteristics of Brittle Deformation in the North Anatolian Fault Zone**
Çağlayan, A., Işık, V., Karabacak, V.
- 12:20 – 12:40** **Seismic and Geodetic Constraints on Yedisu Segment and Karliova Triple Junction**
Aktug, B., Dikmen, Ü., Doğru, A., Özener, H

12:40 – 14:00 Lunch Break

Tuesday 9 October 2012

14:00 – 16:00 Subaqueous Paleoseismology along NAF and other fault systems

Conveners: Görür, N. and Gasperini, L.

- 14:00 – 14:20 Turbidite paleoseismology in the Sea of Marmara Sea**
Çağatay M. N., Biltokin D., Ülgen U.B., Erel L., Gasperini L., Henry P., Grall C., Polonia A., McHugh C., Uçarkuş G..
- 14:20 – 14:40 Lacustrine paleoseismic records from the North Anatolian Fault**
Avşar, U., Hubert-Ferrari, A., De Batist, M., Fagel, N.
- 14:40 – 15:00 Structure and paleoearthquake records of active submarine faults, Cook Strait, New Zealand: Implications for fault interactions, stress loading, and seismic hazard**
Pondard, N., Barnes, P. M.
- 15:00 – 15:20 Submarine Paleoseismology along Transform Boundaries: A seismo-tectonic signal from offshore sedimentation of the 2010 Haiti Earthquake**
McHugh, C. M., Seeber, L., Cormier, M.-H., Hornbach, M., Momplaisir, R., Sorlien, C., Steckler, M., Waldhauser, F.
- 15:20 – 15:40 Active strike-slip faults offshore the South Iberian Margin (Alboran Sea and Gulf of Cadiz): Implications for submarine paleoseismology**
Gràcia, E., Bartolome, R., Lo Iacono, C., Moreno, X., Perea, H., Martínez-Loriente, S., Masana, E., Pallàs, R., Diez, S., Dañobeitia, J.J.
- 15:40 – 16:00 Paleoseismological and active tectonics studies on the offshore Bajo Segura Fault Zone (SE Iberian Peninsula – Mediterranean Sea)**
Perea, H., Gràcia, E., Alfaro, P., Bartolomé, R., Lo Iacono, C., Moreno, X., Masana, E.

Tuesday 9 October 2012

16:00 – 17:00

Poster Session

Wednesday 10 October 2012

09:00 – 12:20 Paleoseismology Along The North Anatolian Fault

Conveners: *Meghraoui, M. and Zabcı, C.*

- 09:00 – 09:20 A review of paleoseismic investigations along the North Anatolian Fault System**
Akyüz, S., Zabcı, C.
- 09:20 – 09:40 Urgent issues on the paleoseismology of the North Anatolian fault**
Okumura, K.
- 09:40 – 10:00 On the use of paleoseismic data in ground motion simulations based on earthquake rupture scenarios**
Atakan, K.
- 10:00 – 10:20 From catalogs, earthquake geology data, and trench data to recurrence models: a Bayesian perspective.**
Fitzenz, D.D., Jalobeanu, A., Ferry, M.A.
- 10:20 – 10:40 Slip-rate estimations along the NAF using paleoclimatic fluctuations**
Aksoy, M.E., Meghraoui, M., Ferry, M., Çakır, Z.

10:40 – 11:00 Coffee Break & Posters

Conveners: *Okumura, K. and Atakan, K.*

- 11:00 – 11:20 Comparing the paleoseismic record obtained by coring a sag-pond and by classical trenching along the eastern segment of the North Anatolian Fault**
Hubert-Ferrari, A., Avsar, U., Fraser, J., El Ouahabi, M., Vanneste, K., Lepoint, G., Fagel, N.
- 11:20 – 11:40 The last 5 ka Morphochronological slip-rate history of the Ilgaz-Karlıova section of the North Anatolian Fault, Turkey**
Zabcı, C., Akyüz, H. S., Sançar, T., Kiyak, N. G.
- 11:40 – 12:00 Morphotectonics and Paleoseismology of the Çaldırın Fault, Eastern Turkey**
Sağlam S.A., Erturaç M. K., Gutsuz P., Selçuk L.
- 12:00 – 12:20 Role of Paleoseismicity in Oil & Gas Pipelines interacting with the North Anatolian Fault Zone.**
Bayraktutan, M.S., Bayraktutan, L.S.

12:20 – 14:00 Lunch Break

Wednesday 10 October 2012

14:00 – 18:20 Active Tectonics and Paleoseismology: Recent Research from around the World

Conveners: Ferrari-Hubert, A. and Erturaç, M.K.

- 14:00 – 14:20 Long-term faulting history and related seismic cycle of the Dead Sea Fault**
Meghraoui, M.
- 14:20 – 14:40 Past and Potential Future Earthquakes in North Iceland**
Jónsson, S., Metzger, S.
- 14:40 – 15:00 The May - June 2012 seismic sequence in Emilia Region (North Italy). An overview of surface effects from satellite images and ground survey.**
Stramondo, S., Bignami, C., Cannelli, V., Chini, M., Falcucci, E., Gori, S., Melini, D., Moro, M., Pierdicca, N., Pulvirenti, L., Saroli, M.
- 15:00 – 15:20 Seismotectonics of the Sagaing Fault in Myanmar**
Atakan K., Tun S.T., Thant M.
- 15:20 – 15:40 New Paleoseismology studies in Urmia-Silvana region**
Ciabeghodsi,A., Nikrouz, R.

15:40 – 16:00 Coffee Break & Posters

Conveners: Langridge, R. and Stramondo, S.

- 16:00 – 16:20 The Surface Deformation and Source Parameters of the October 23rd, 2011, Mw 7.1 Van (Turkey) Earthquake from InSAR, GPS and Field Observations**
Akoğlu, A.M., Jónsson,S., Çakır, Z., Ergintav, S., Doğan, U., Osmanoğlu, B., Feng, G., Zabcı, C.
- 16:20 – 16:40 A comparative study of the fault interaction and seismicity migration in the Kazerun (Iran) and North Anatolian (Turkey) fault systems**
Hashemi, S. N., Hasanlou, A.
- 16:40 – 17:00 Slip history of the Dead Sea fault system since 100 ka**
Ferry M., Gold, R., Meghraoui M.
- 17:00 – 17:20 Tectonic geomorphology of the active Kyaukkyan Fault, Myanmar**
Watkinson, I.
- 17:20 – 17:40 Paleoseismicity and slip rate of the strike-slip Hope Fault, South Island: A well-segmented and frequent earthquake source in New Zealand.**
Langridge, R.M., Khajavi, N., Hemphill-Haley, M. A., Almond, P., Duncan R.
- 17:40 – 18:00 Rupture Process of the 11 March 2011 Japan Earthquake**
Raeesi, M., Atakan, K.
- 18:00 – 18:20 Seismicity and Seismotectonics of the Tabuk Region, Northwestern Saudi Arabia**
Al-Arifī, N. S., Al-Besher, Z., Abdel-Rahman, K., Aldamegh, K.

POSTER SESSION

Monday to Wednesday 8 – 10 October 2012

*Posters will be in display throughout the conference.
Posters will be presented between 11:20 and 12:20 on Tuesday.*

1. **Şarköy-Mürefte 1912 Tsunami and the Estimation of Underwater Failures in the Sea of Marmara**
Altinok, Y., Alpar, B., Yaltırak, C., Vardar (Aykurt), H.
2. **Mapping of the earthquake-related hazard based on the artificial intelligence**
Pshenichny, C.A, Anokhin V.M., Garcia A.
3. **Focal Mechanism Studying of Van Earthquake (in Turkey) Using Telesismic Data**
Seifi Laleh , S., Gheitanchi , M., Hamzeloo , H.
4. **Climate fluctuations and seismic precursors assessment through time series geospatial and in-situ monitoring data**
Zoran M., Savastru R., Savastru D.
5. **The geometry and activity of the North Anatolian Fault's middle strand at the southern shelf of the Sea of Marmara**
Vardar, D., Öztürk, K., Yaltırak, C., Alpar, B., Tur, H., Elitez, İ.
6. **Does the active Cibyra Fault cut the ancient Stadion? (Burdur-Fethiye Fault Zone,Turkey)**
Elitez, İ. and Yaltırak, C
7. **Seismic imaging of submarine seismogenic faults beneath the western Alboran Sea (SE Iberian margin)**
Bartolomé, R., Gràcia, E., Ranero, C., Lo Iacono, Cl., Martínez-Loriente, S., Perea, H., Dañobeitia, J. J.
8. **The strike-slip Yussuf fault system (Alboran Sea): Multi-scale seismic imaging and evidences of Quaternary activity**
Perea, H., Gràcia, E., Bartolomé, R., Ranero, C.R., Lo Iacono, C., Martínez- Loriente, S., Moreno, X., EVENT-DEEP and TOPOMED-GASSIS teams