



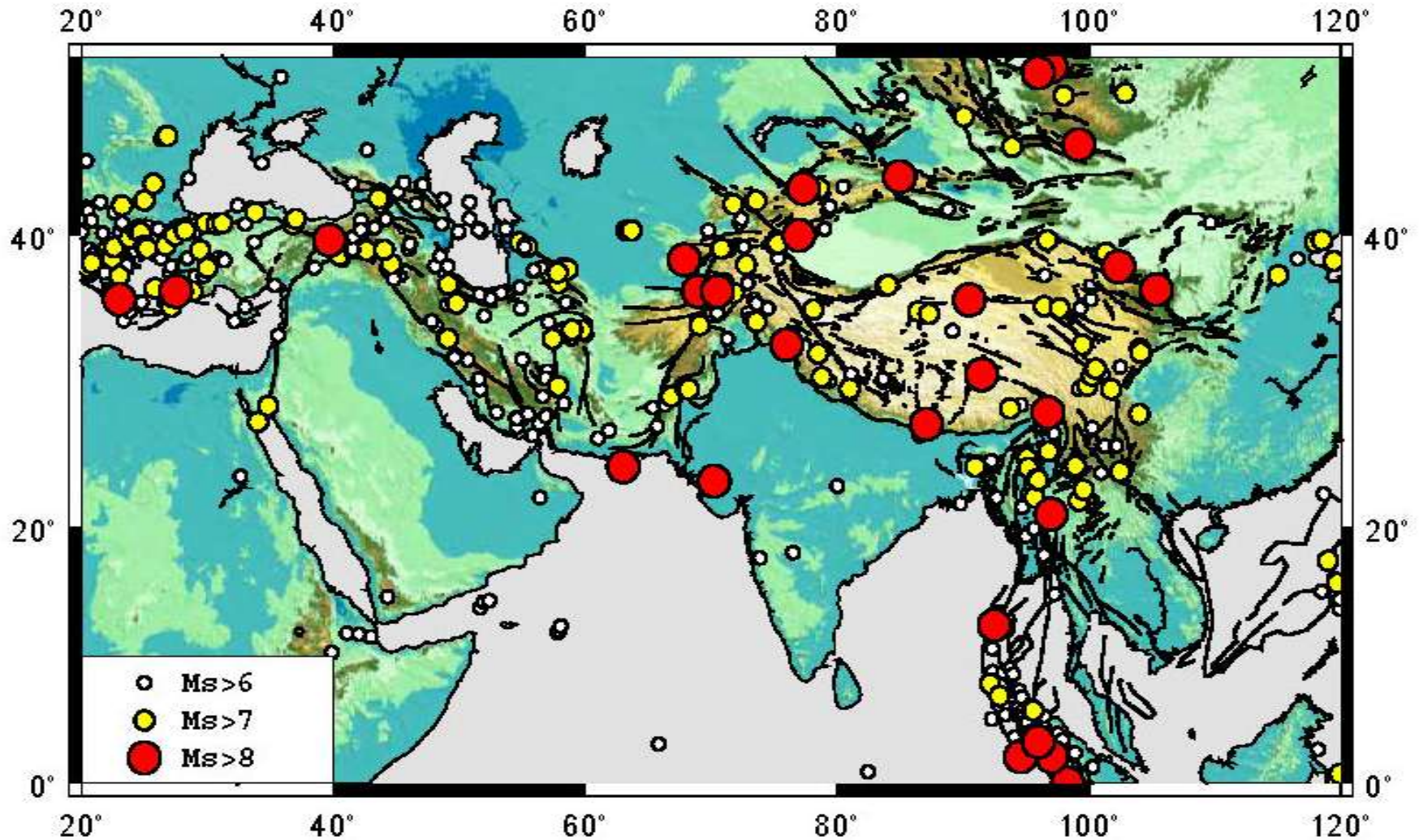
**Seismological aspects and aftershock
sequences of the November 12, 2017
Sarpol-e Zahab (Kermasnhah) Earthquake
($M_w=7.3$)**

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Associate Professor of Seismology**

International Institute of Earthquake Engineering and Seismology

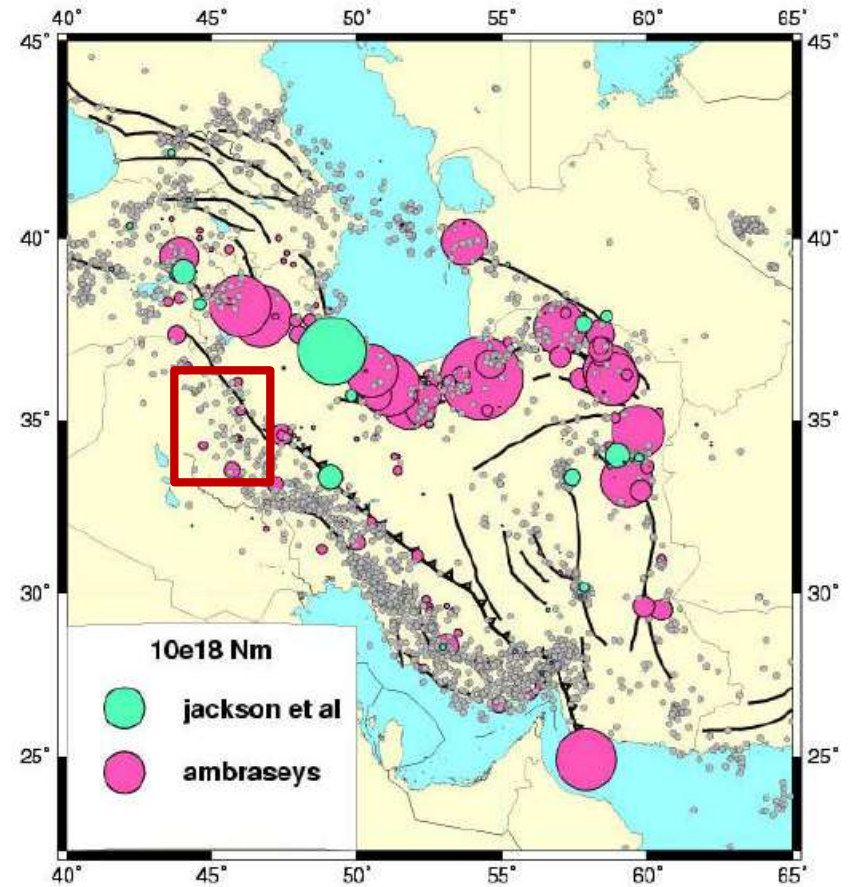
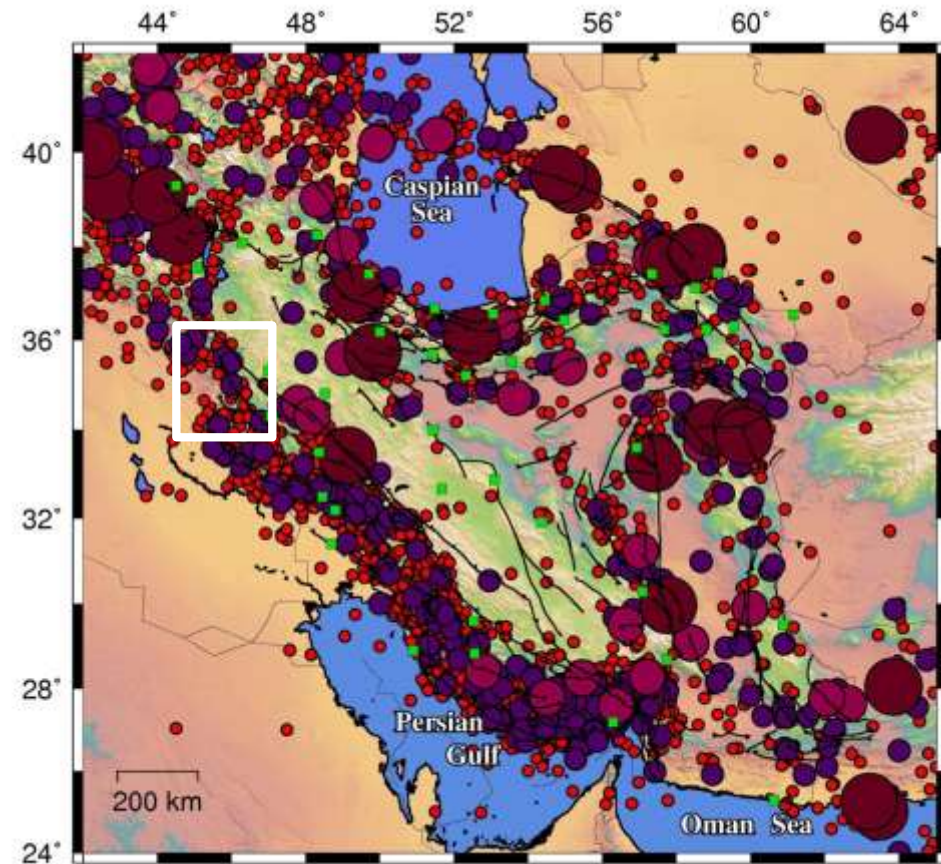
IIEES, Tehran, 11 of December, 2017

Major earthquakes

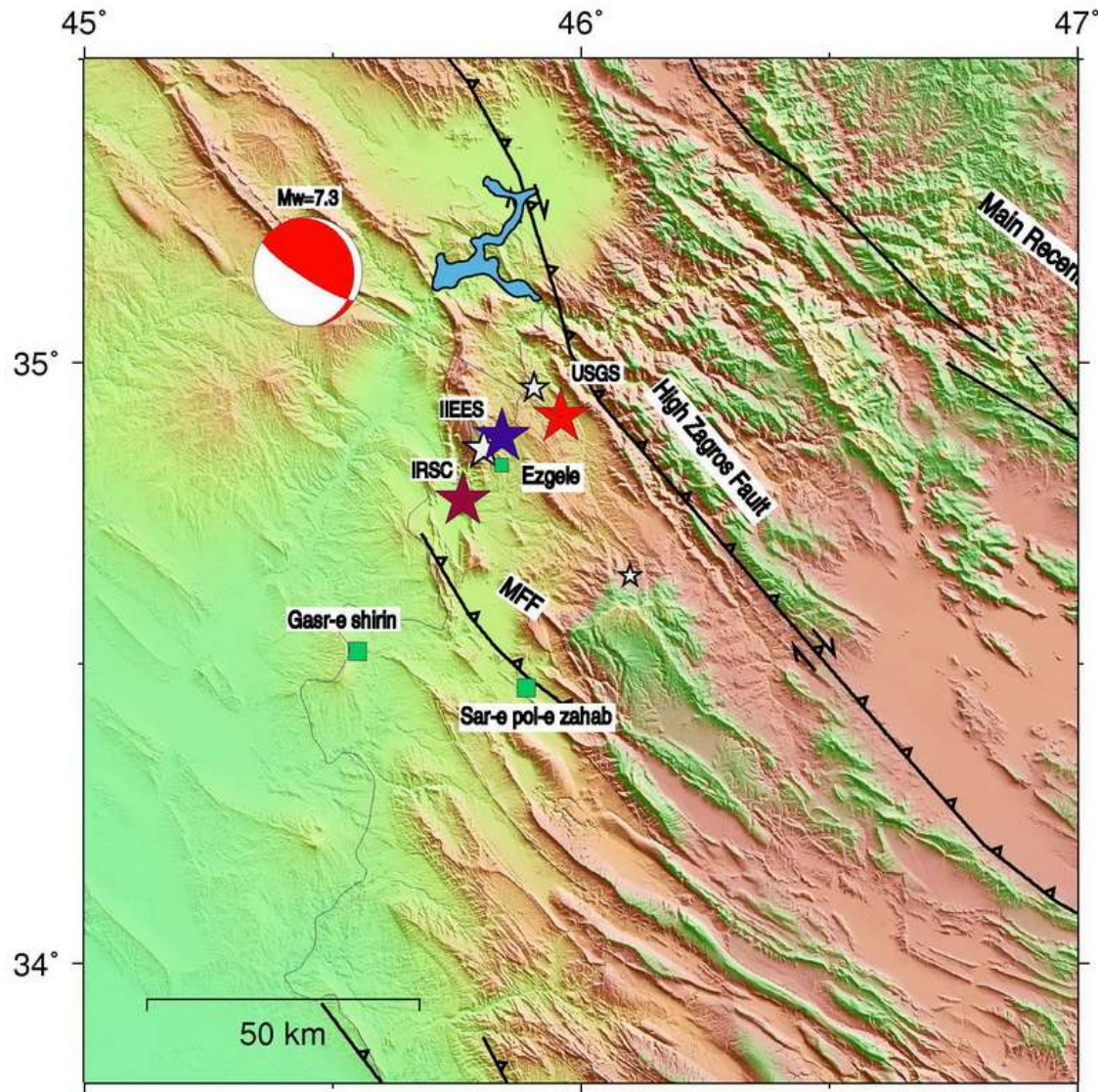


Hatzfeld & Molnar, 2010

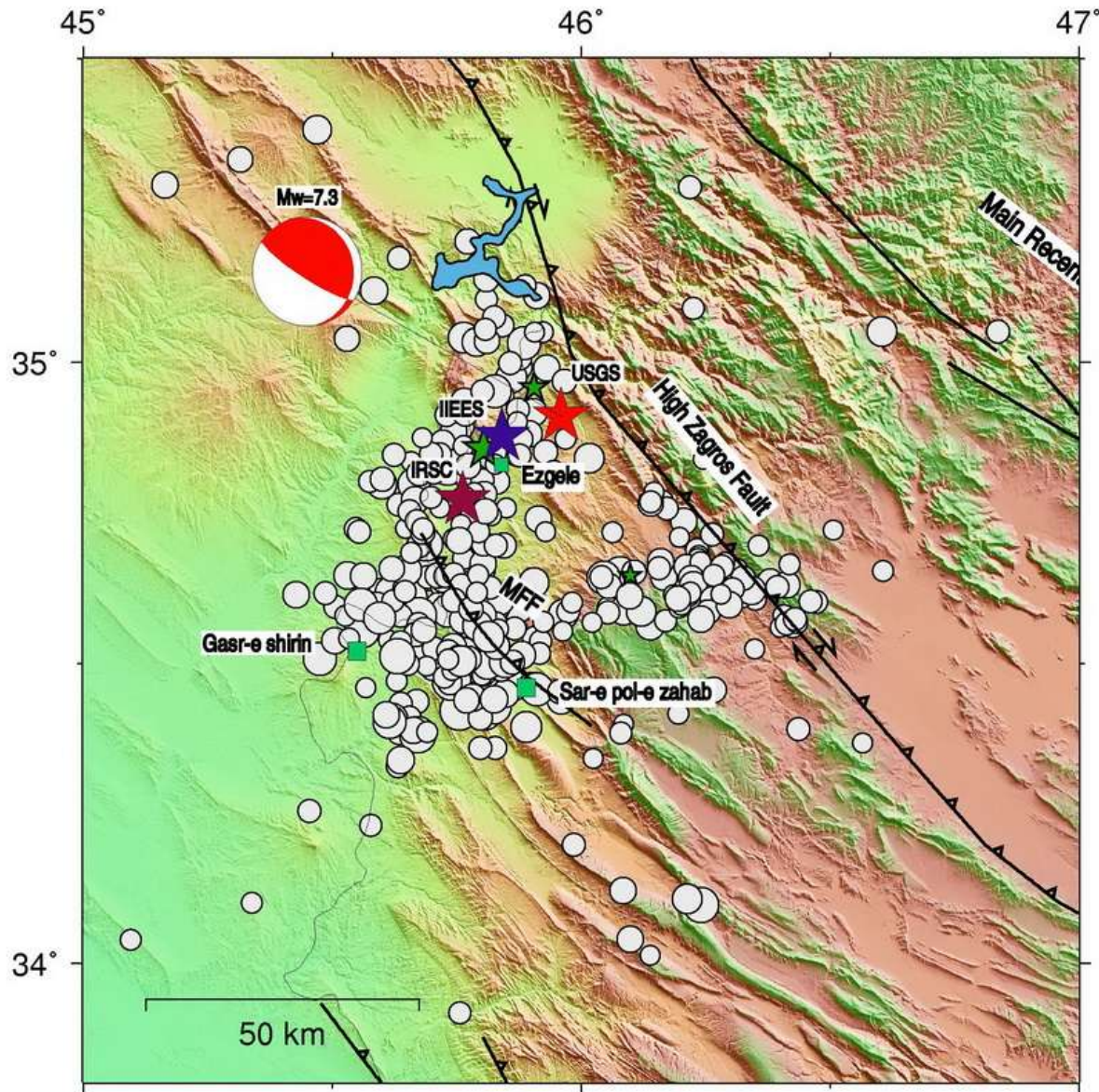
Seismicity and seismic energy



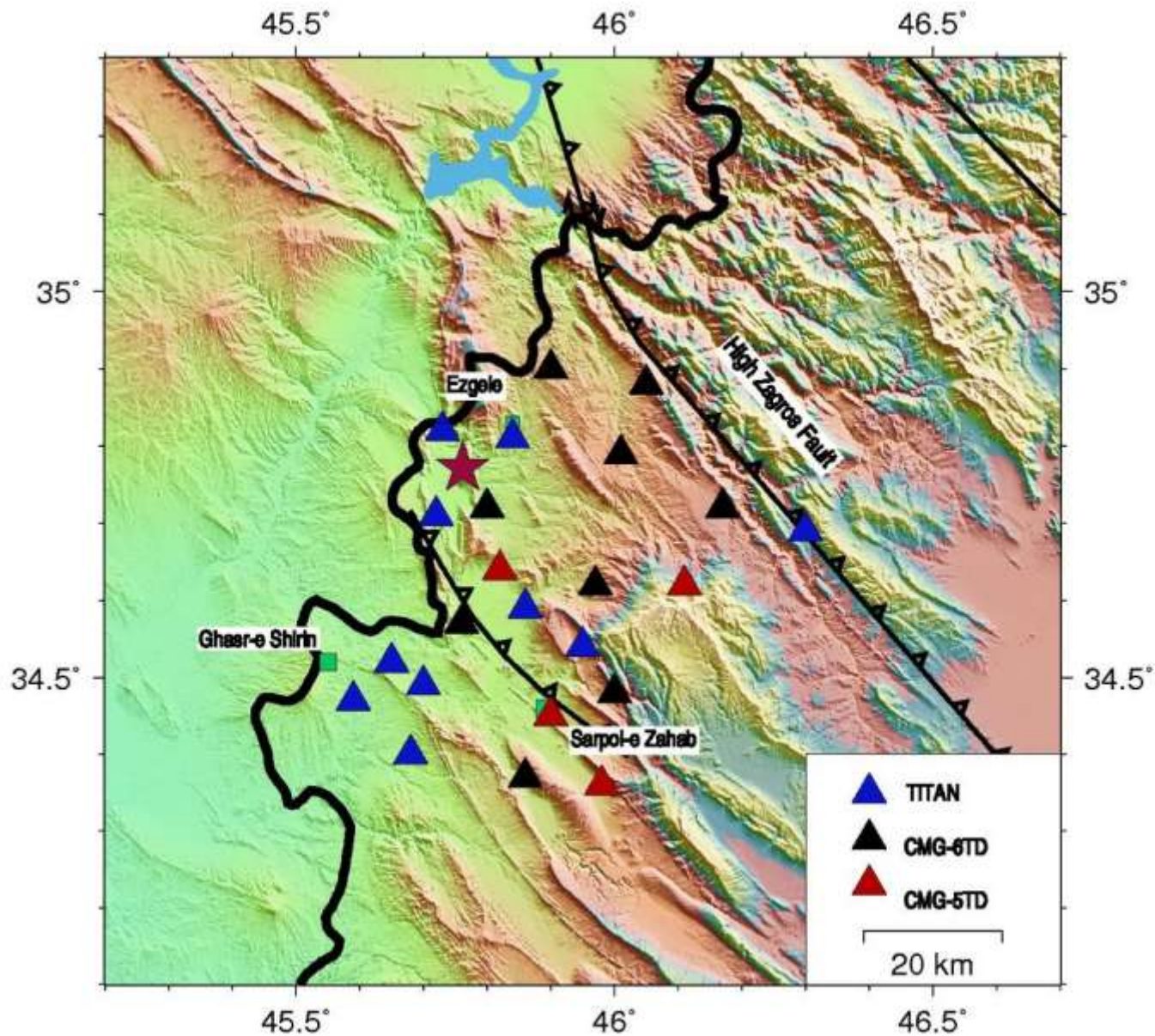
Foreshocks and Main shock



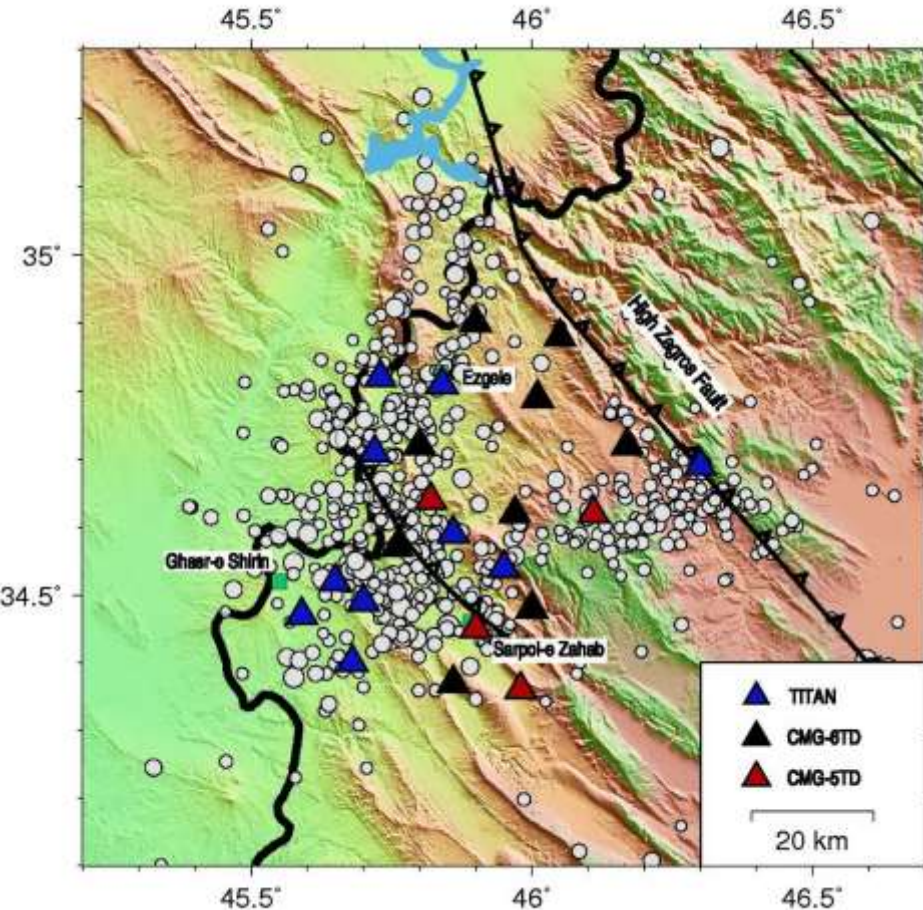
Main shock and aftershocks (IRSC, until 10/12/2017)



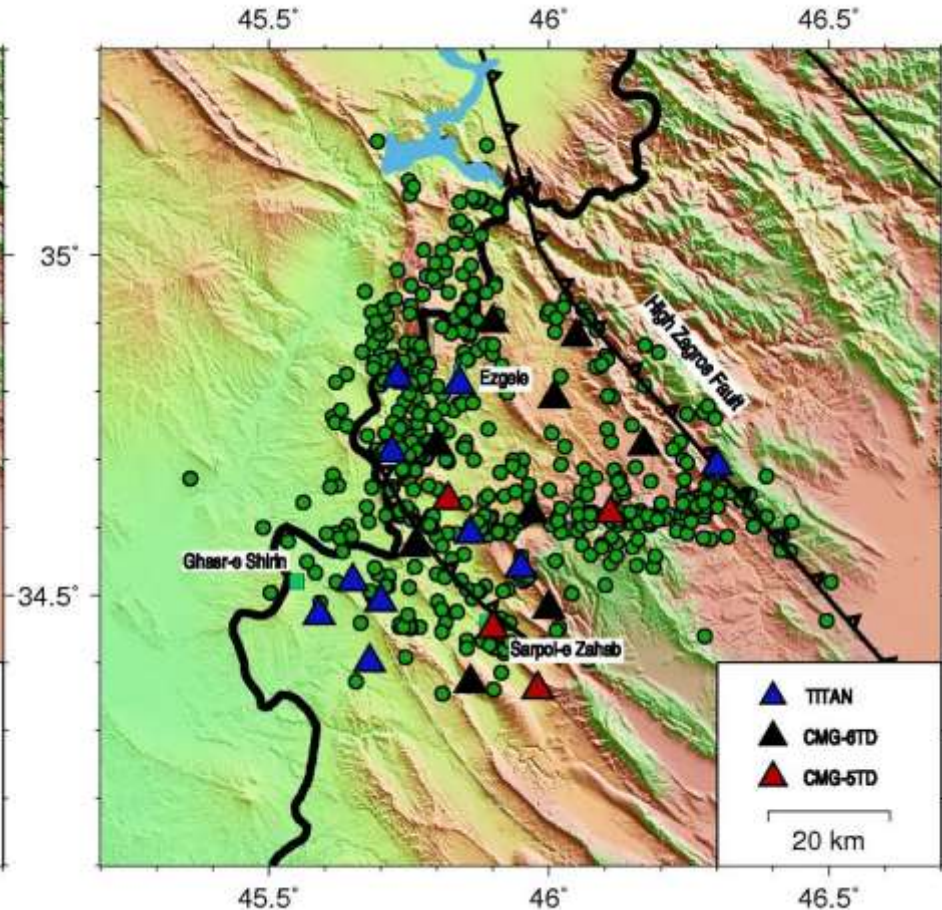
IIEES Local Seismological Network



IIEES Local Seismological Network

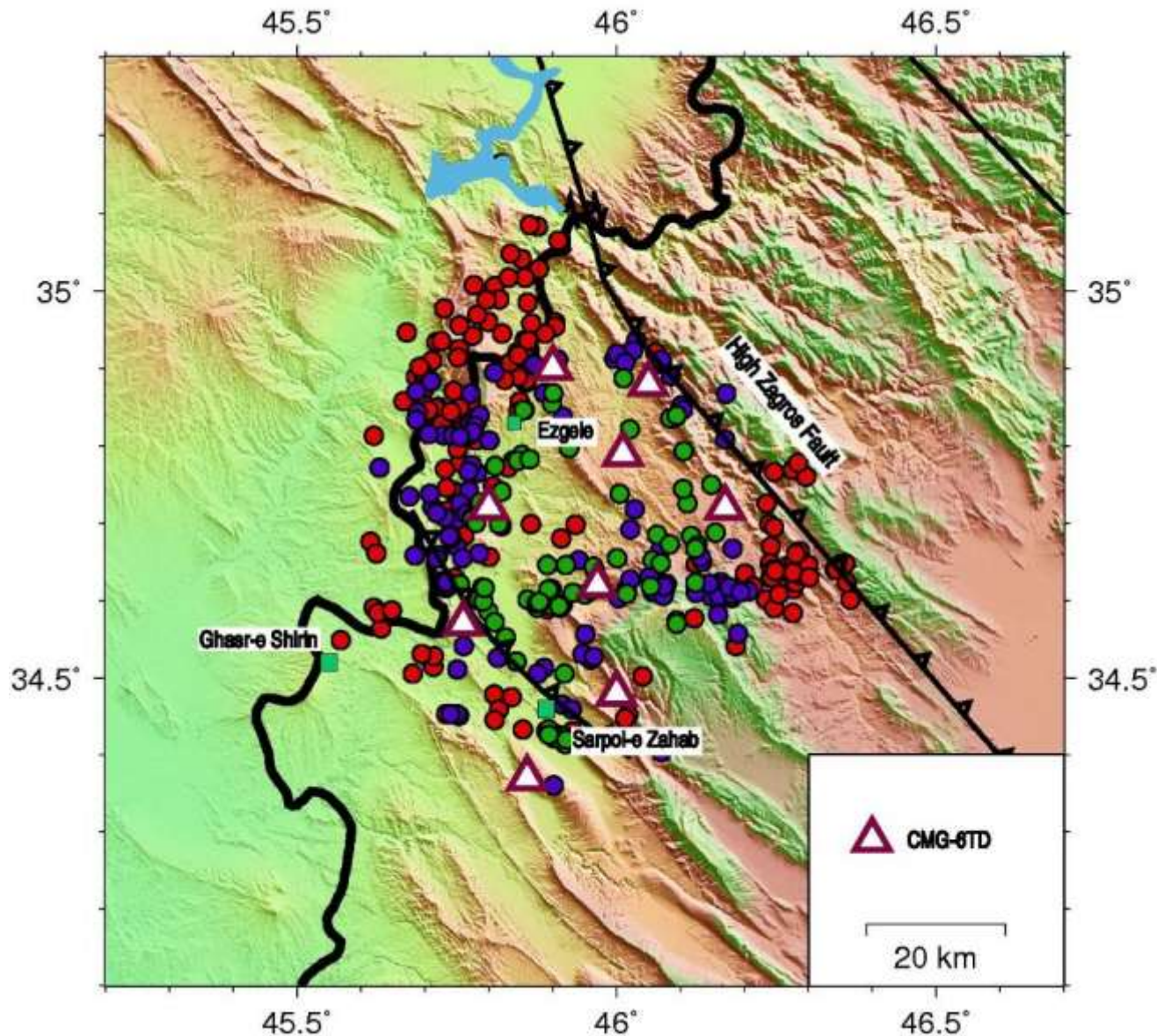


~620 recorded aftershock by IRSC during 3 weeks after the Main shock

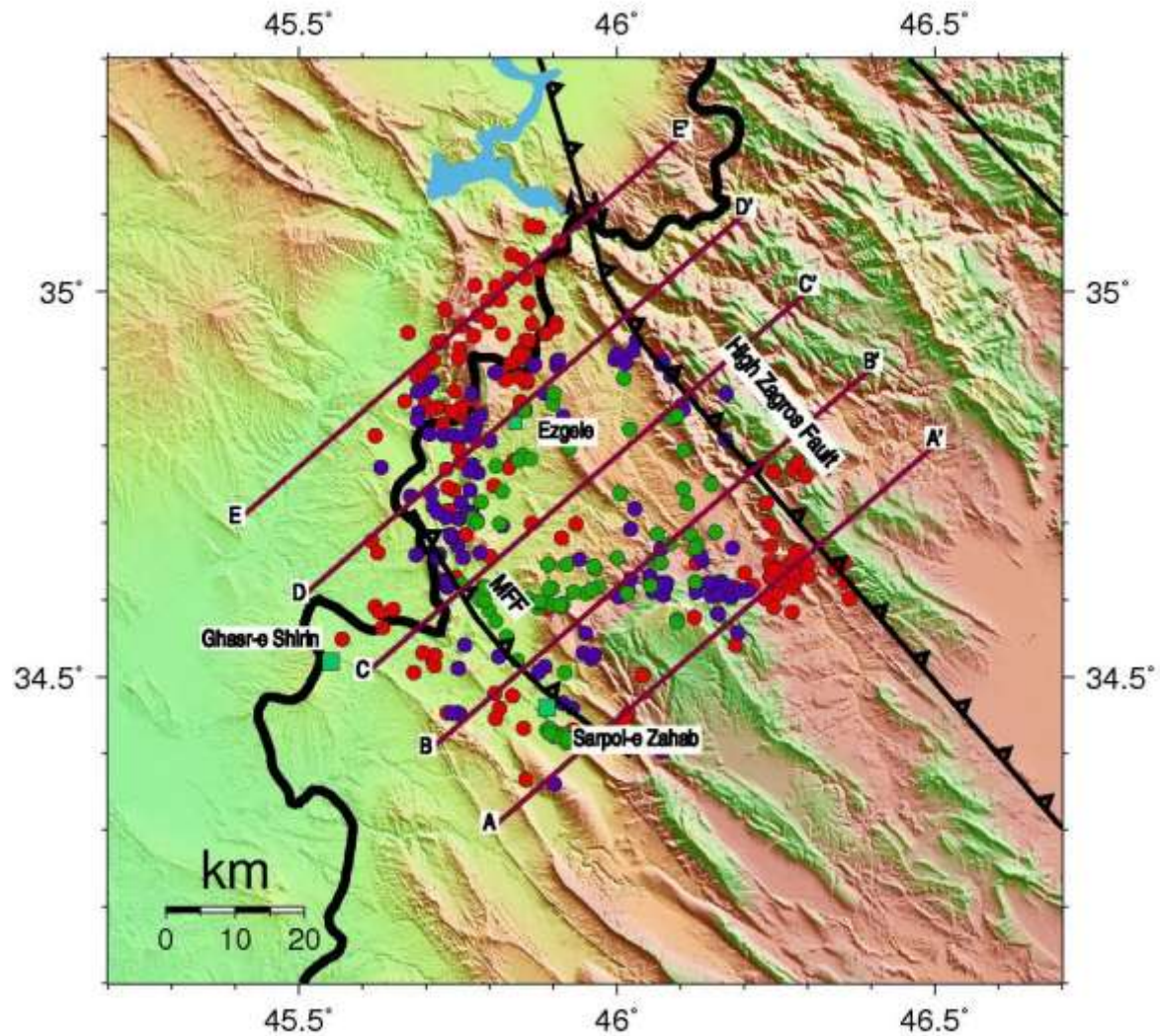


~550 recorded aftershock by IIEES local Network in just 2 days after installation

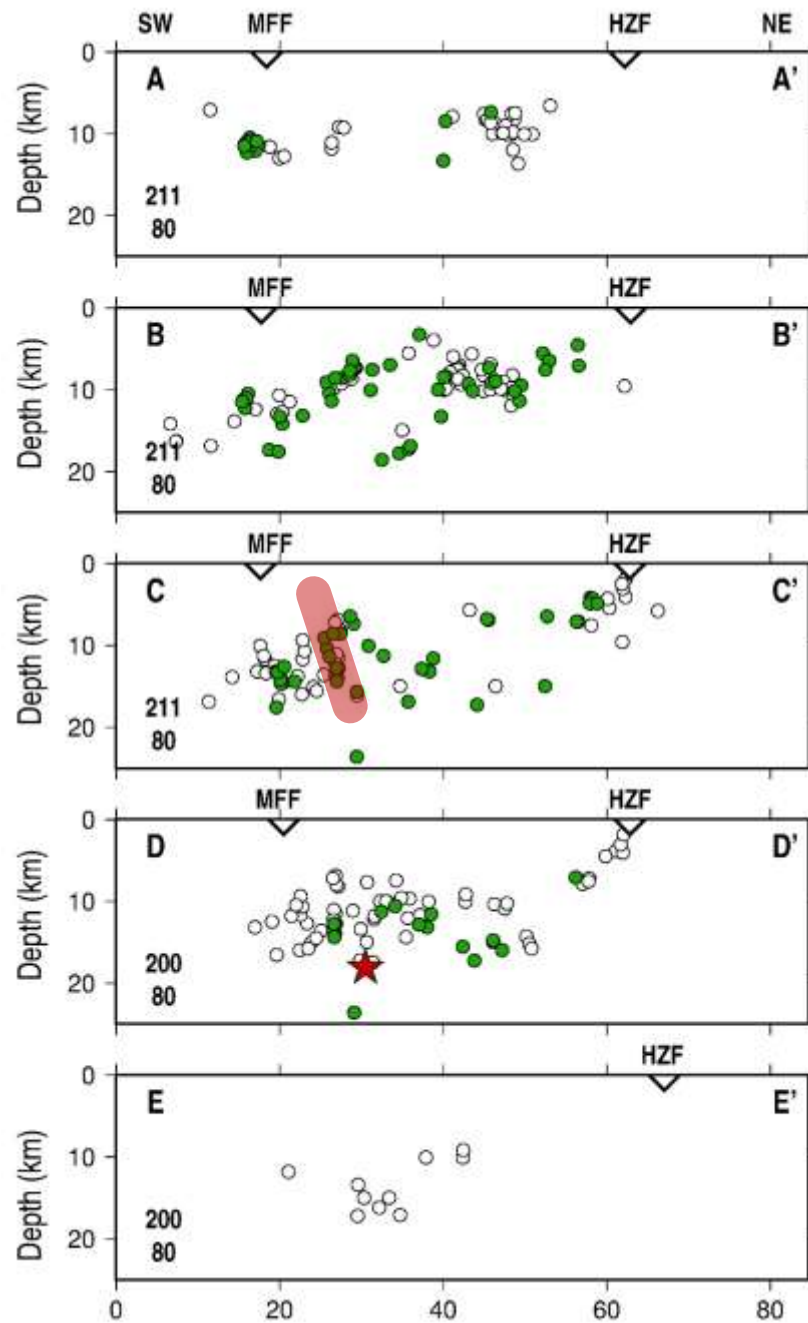
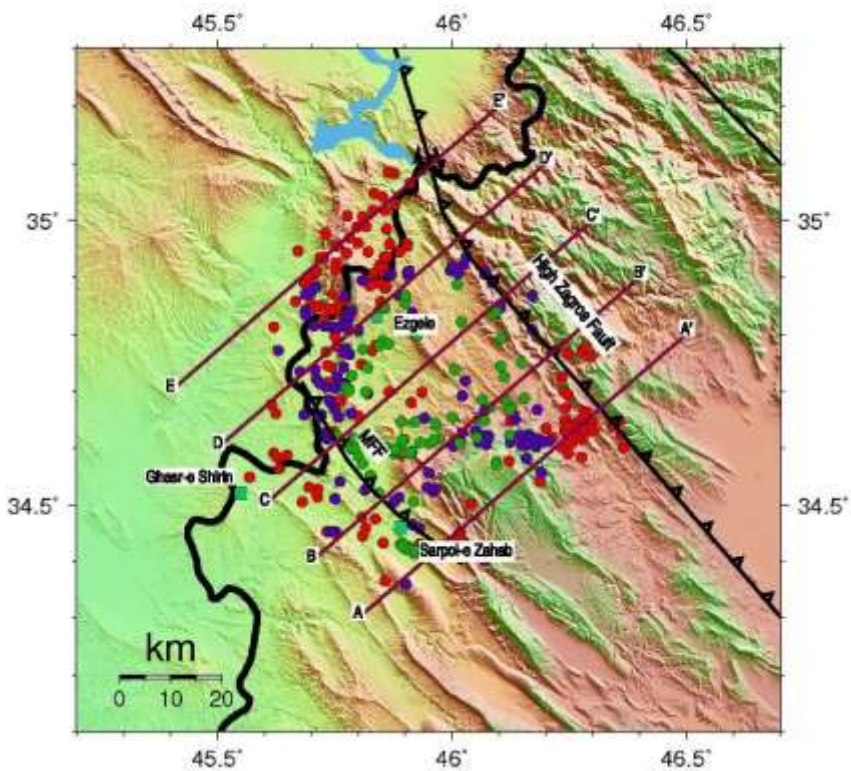
IIEES Local Seismological Network (Selected events located within the network)



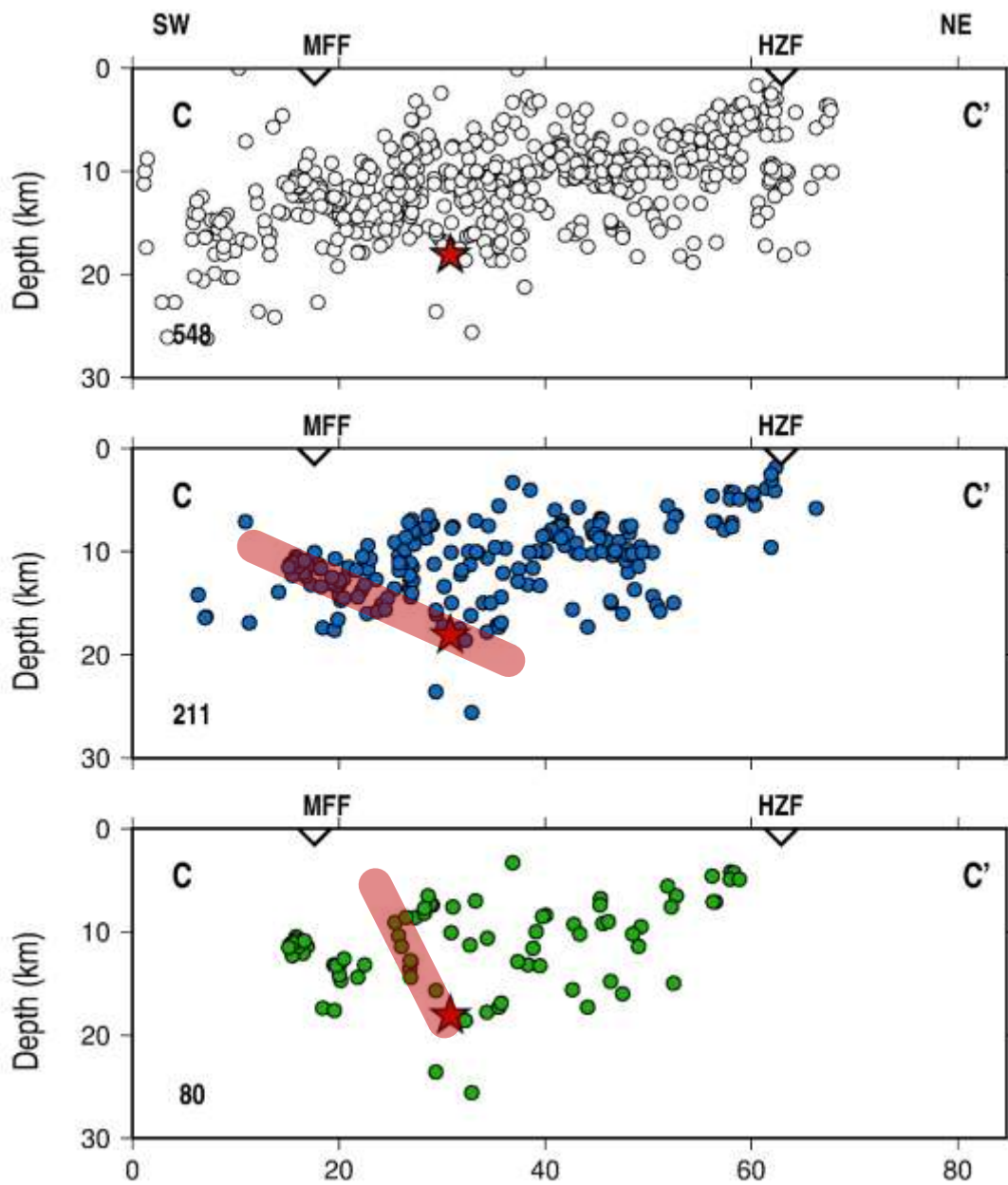
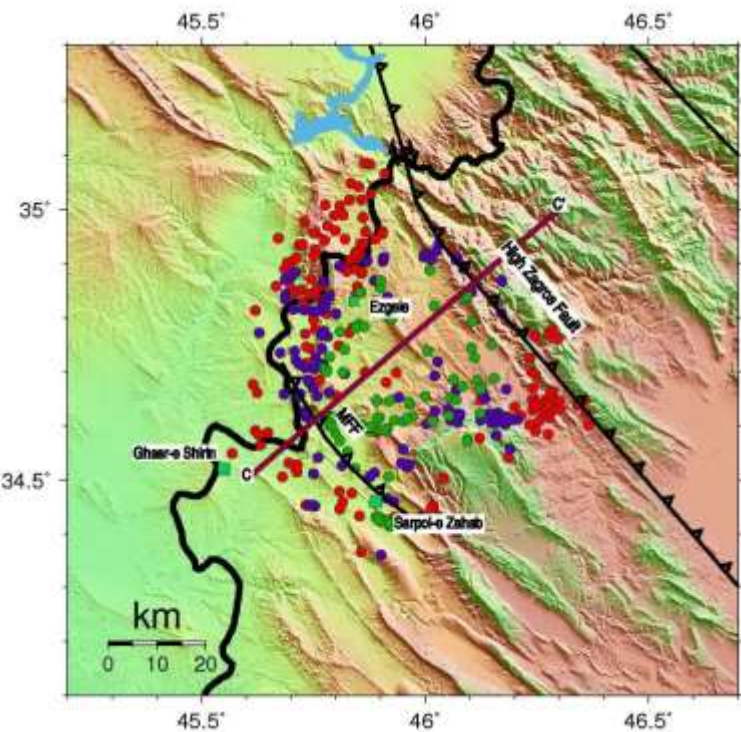
Cross sections



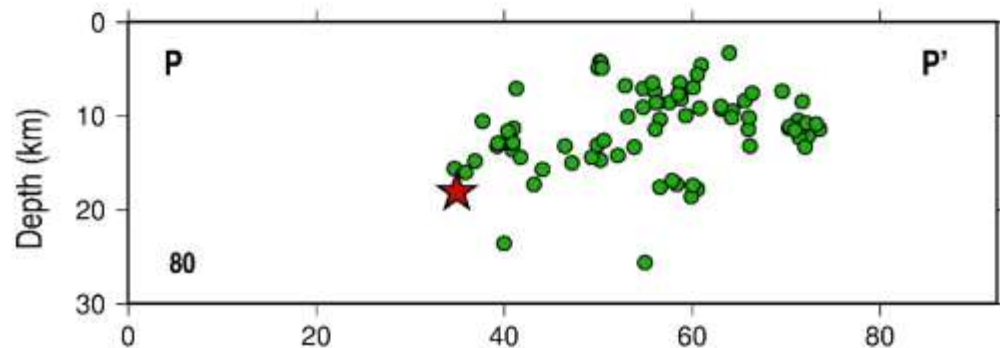
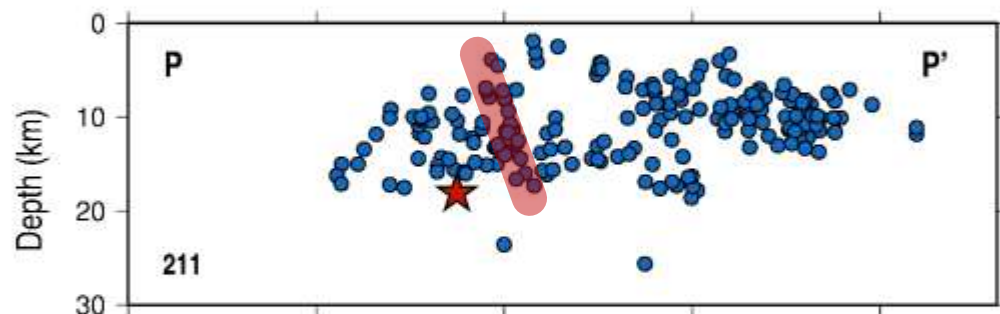
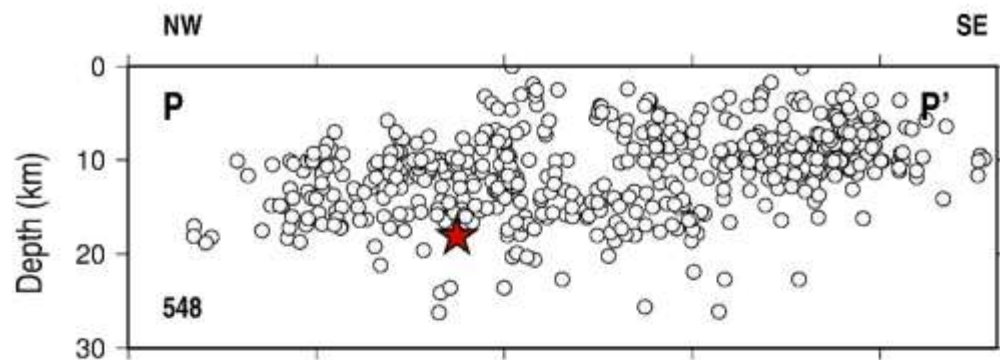
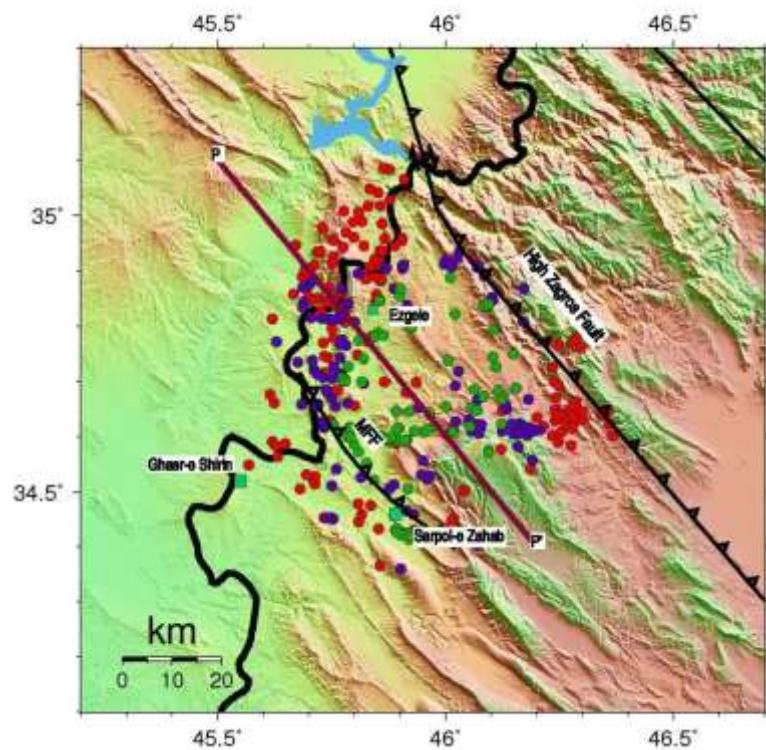
Cross section (10 km width)



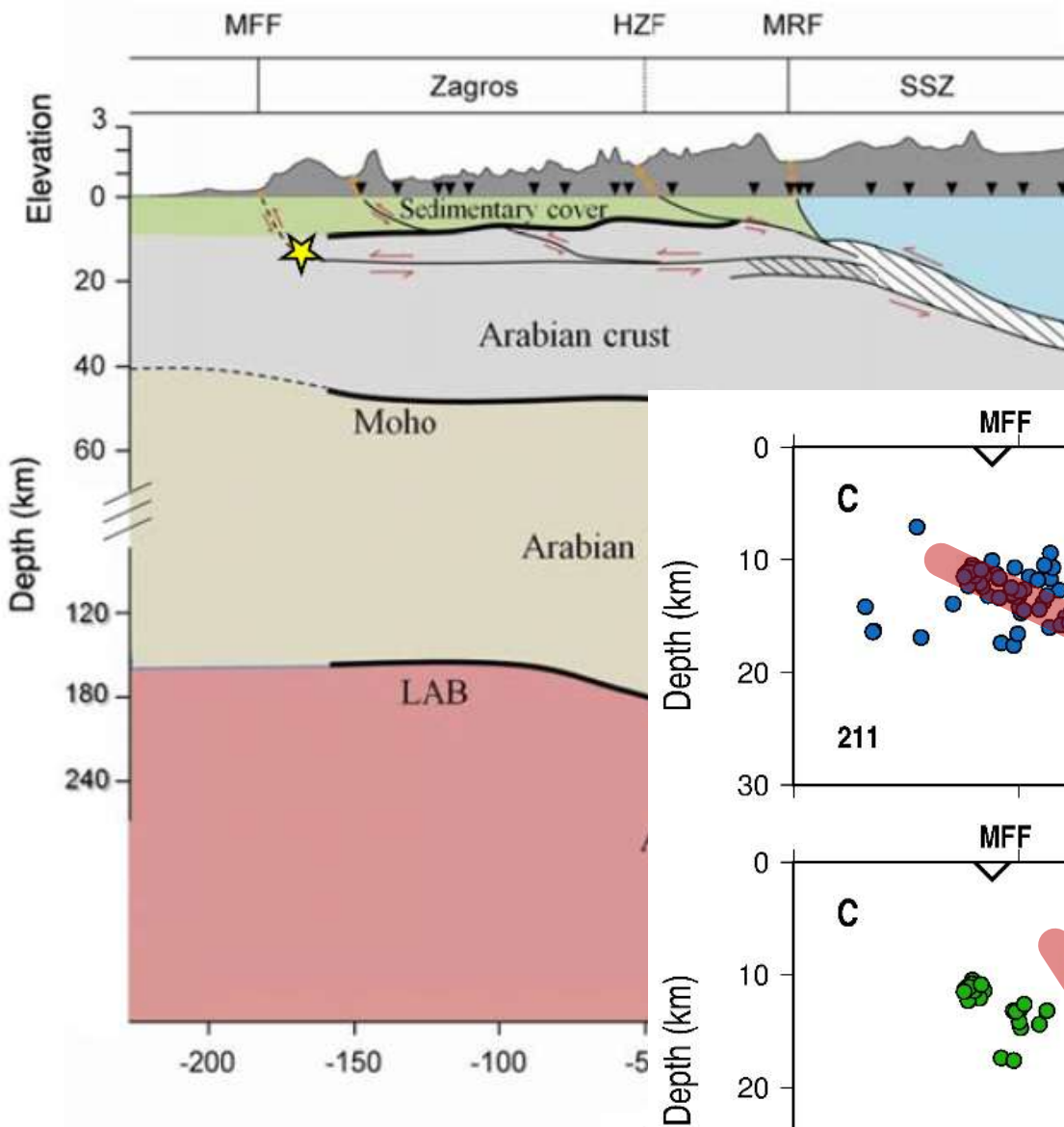
Cross section (50 km width)



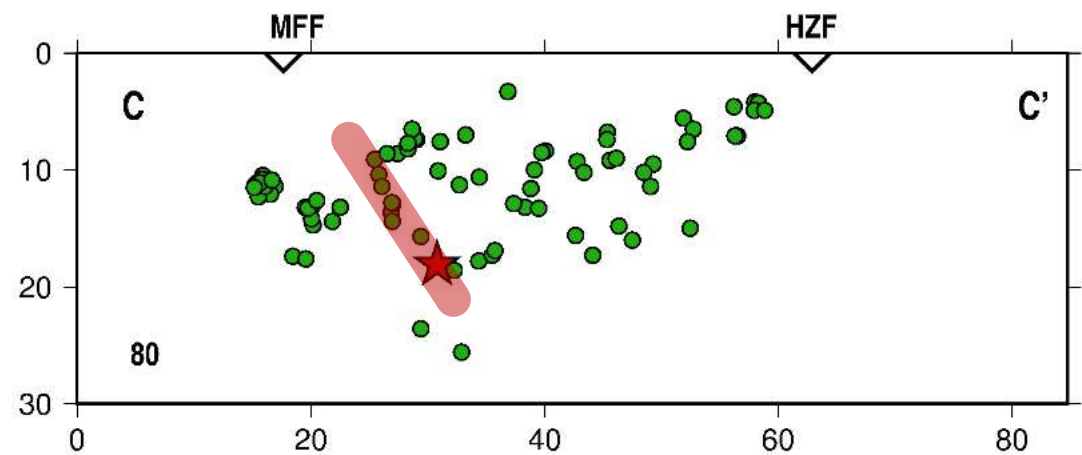
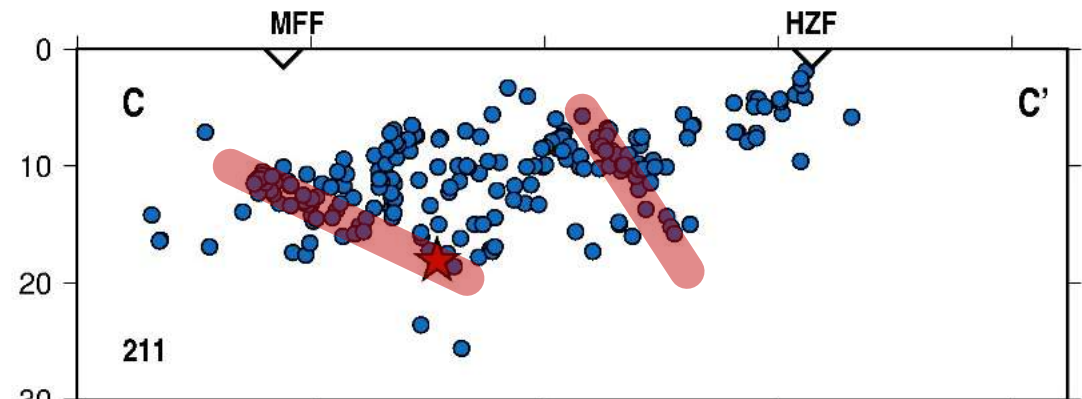
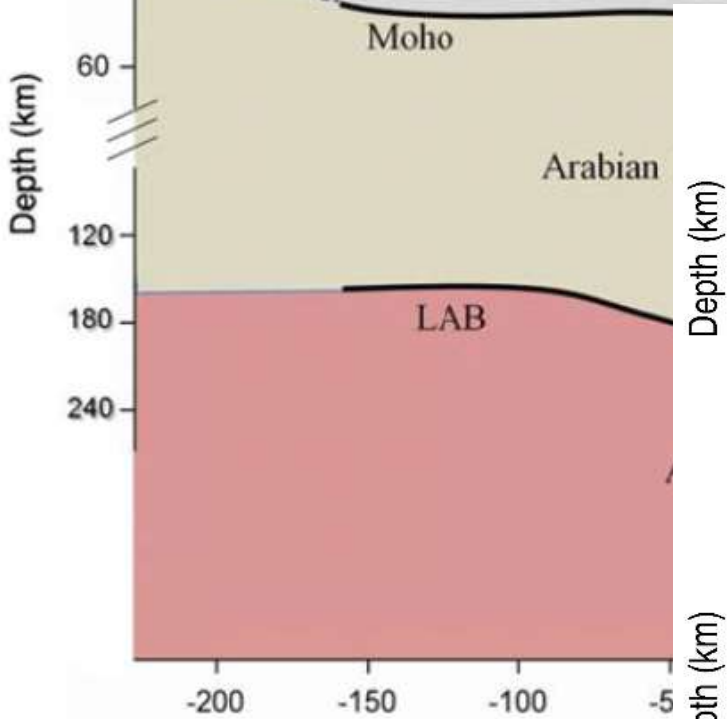
Cross section (50 km width)



Summary



- **Main shock on: low angle thrust fault**
- **Aftershocks on: high angle revers (or strike-slip) faults**



Motaghi et al., 2017

Many Thanks for your attention

