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OBAVIJEST

Dana **12.10.2022.** u **13:15 sati** održat će se

(na Geofizičkom odsjeku PMF-a) sljedeće izlaganje:

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The legacy of MEDUSA: Tracking subduction fluids and earthquakes deep beneath western Greece

ABSTRACT: What causes intraslab earthquakes in subduction zones? The Hellenic subduction system provides a natural laboratory for exploring this question owing to its complex structure straddling two subduction regimes. I will discuss key results from data collected across western Greece, primarily from the MEDUSA dense teleseismic array. This work has provided important new insight both into the subduction dynamics of the Western Hellenic Subduction Zone and into fluid processes operating in subduction zones globally. High-resolution seismic images show that subduction in western Greece transitions from rapidly retreating oceanic slab subduction in the south to slow-converging continental slab subduction in the north. Intraslab seismicity stops exactly at the transition from oceanic to continental subduction, pointing to fluids as playing a key role in the generation of these earthquakes. Closer inspection of the earthquakes reveals the existence of localized seismicity clusters at the plate interface and in the mantle wedge. These patterns of seismicity, also detected in other subduction zones worldwide, suggest that earthquakes in cold subduction zones track the migration of fluids from their source in the slab to their sink in the mantle wedge. Za provjeru adekvatnosti i uspješnosti GP metode, sintetički seizmogrami uspoređeni su sa zapisima četiri potresa na području Kalifornije (Imperial Valley, Loma Prieta, Landers i Northridge). Usporedbom parametara kao što su PGA, PGV, SA i trajanje trešnje tla, te procjenom mogućnosti reproduciranja određenih specifičnosti koje se uočavaju na stvarnim seizmogramima, utvrđeno je da GP metoda daje zadovoljavajuće rezultate za relativno široki raspon frekvencija i područje na kojem je primijenjena.

Pozivaju se studenti, absolventi i svi zainteresirani da prisustvuju predavanju, koje će se održati u predavaoni P2 na Geofizičkom odsjeku PMF-a, Horvatovac 95, Zagreb.