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## **OBAVIJEST**

Dana **04.07.2018.** u **14:15 sati** održat će se na Geofizičkom odsjeku PMF-a  
sljedeće izlaganje:

**Izv. Prof. Hrvoje Tkalčić**

(RSES, ANU, Australija)

### **Reaching for the Holy Grail of Modern Global Seismology: New insights into the centre of the Earth from the detection of J waves**

**SAŽETAK:** More than 75 years ago, the Earth's core was hypothesized to be solid in the centre as a result of a liquid–solid phase change in iron, which implies that shear waves in its solid part (seismic J–phase) should exist. Some claims of such observations have been made, but the J–phase has remained elusive until the present day. According to some researchers, the compressional body waves that convert to shear waves during passage through the inner core (a.k.a. PKJKP) were termed “the holy grail of body wave seismology”.

I will tell a story on how the quest for the PKJKP took an unexpected turn: we employed recent advances in the global correlation wavefield to detect the presence of the J waves unequivocally.

From the observations of the J–phase, we obtained new estimates for shear properties of the Earth's centre, including shear wave speed, resistance to shear and attenuation.

I will present evidence for a “soft inner core”, which explains the absence of PKJKP waves in the seismic wavefield and has significant implications for geodynamics and mineral physics studies.

Pozivaju se studenti i svi zainteresirani da prisustvuju predavanju, koje će se održati u **predavaoni P2** Geofizičkog odsjeka PMF-a, Horvatovac 95, Zagreb