



SAPIENZA  
UNIVERSITÀ DI ROMA



DEEP CARBON  
OBSERVATORY



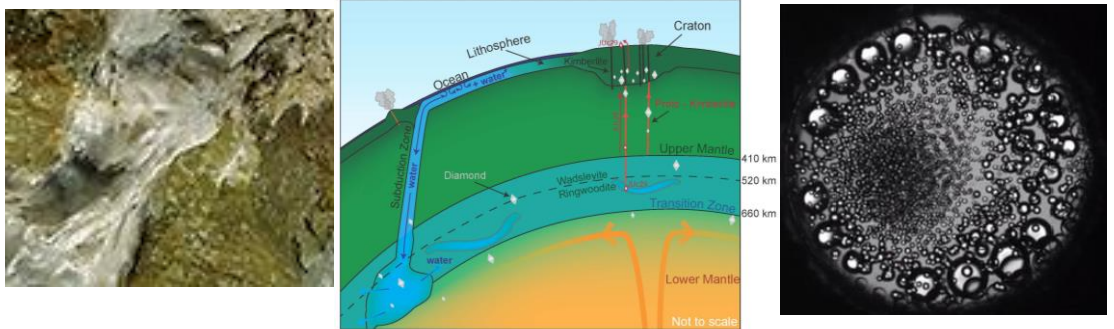
**Thursday, July 14 2016** (9:30-12:00 and 14:30-17:00)

**Friday, July 15, 2016** (9:30-12:00)

room 5, DST (Mineralogy building)

**Prof. Dimitri A. Sverjensky (John Hopkins University, Baltimore, USA) will give hands-on training about:**

## ***The Deep Earth Water model – modeling water-rock interactions from Earth's surface into the mantle***



Water-rock interactions influence many geological processes, including from weathering and transport in shallow aquifers to earthquakes and volcanic eruptions. Water is a key agent for transporting chemical elements, but how it behaves under the extreme conditions of Earth's interior is poorly understood. The Deep Earth Water model enables prediction of the dielectric constant of water, together with new estimation procedures that enable calculation of the thermodynamic properties of chemical species dissolved in water. Overall, this approach enables prediction of fluid-rock interactions from Earth's surface into the upper mantle.