

## Geowissenschaftliches Kolloquium

## Evidence for rapid heating and fluid release at the subduction interface

Donnerstag, 4. Mai 2017 - 16.15 Uhr

Besim Dragovic (Virginia Tech University - USA)

Dehydration and densification of subducting oceanic crust and mantle drive plate tectonics, control elemental cycling to the deep Earth, and induce arc magmatism and intermediate-depth

seismicity. While subduction can persist for millions of years, the processes related to fluid release and densification are shown to be brief. This study uses field-based constraints to determine the duration and rates of metamorphism and fluid release during subduction, utilizing garnet geochronology, phase equilibria modeling, and geodynamic models to better understand subduction zone processes.



After a B.A at Boston University and M.S. at the University of Good Connecticut, Besim worked in the cement and concrete industry for several years. He earned a Ph.D. at Boston University in 2013, and now is Research Faculty at Virginia Tech. His research interests include the timescales of metamorphism and fluid-rock interaction and elucidating the early Earth plate tectonic record.

## Institut für Geologische Wissenschaften

Großer Hörsaal (C.011), Haus C Malteserstrasse 74-100 12249 Berlin

