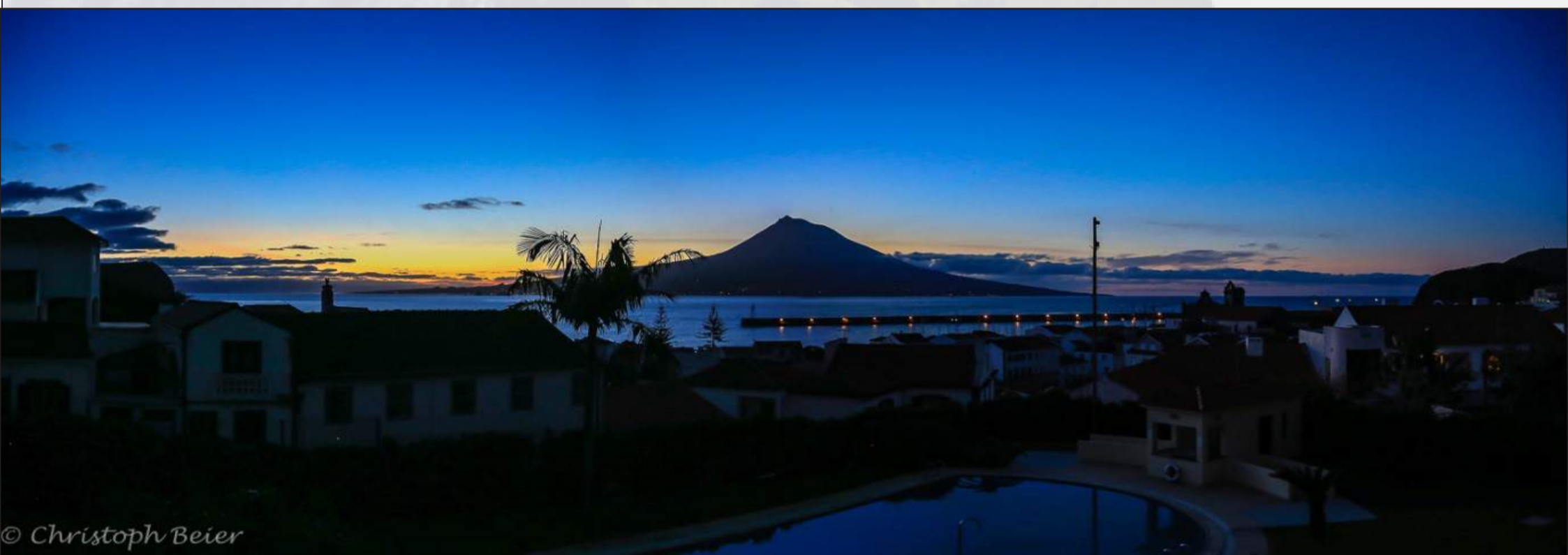


# SOLID EARTH SEMINARS

FROM OCEANIC PLATEAU TO SINGLE VOLCANOES:  
ZOOMING IN ON THE AZORES ARCHIPELAGO



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The Azores archipelago and the associated submarine platform provide the unique opportunity to improve our understanding of the emplacement and evolution of intraplate magmas, as well as the interaction between intraplate volcanism and a crustal stress field that has been subject to frequent changes in the last 10 Ma. New bathymetric, seismological, petrological and geochemical data from samples obtained during two research cruises with R/V Meteor indicate prolonged hydrothermal activity of several million years (from ~10 to 6 Ma). The subsequent decrease of widespread volcanic activity results in a focussing of magmas into rift zones acting as a foundation for the formation of new large, central volcanoes. During the juvenile stages of volcanism magmas are being preferentially extracted through dykes forming a series of monogenetic cones. With the establishment of an evolved, shallow magma reservoir in a weak stress barrier, the rise of a polygenetic edifice starts which ultimately forms the basis of the subaerial volcanoes. Our new data imply that rifting along the slow spreading Terceira axis follows mechanisms commonly observed along continental rift systems as opposed to those commonly observed in the oceanic environment.

WHAT'S THIS  
ABOUT?



ZOOM

**Christoph Beier**

(University of Helsinki)

**DECEMBER 9**  
**Wednesday: 13:00**

PASS: RG234\_SES

<https://videoconf-colibri.zoom.us/j/89018419156>