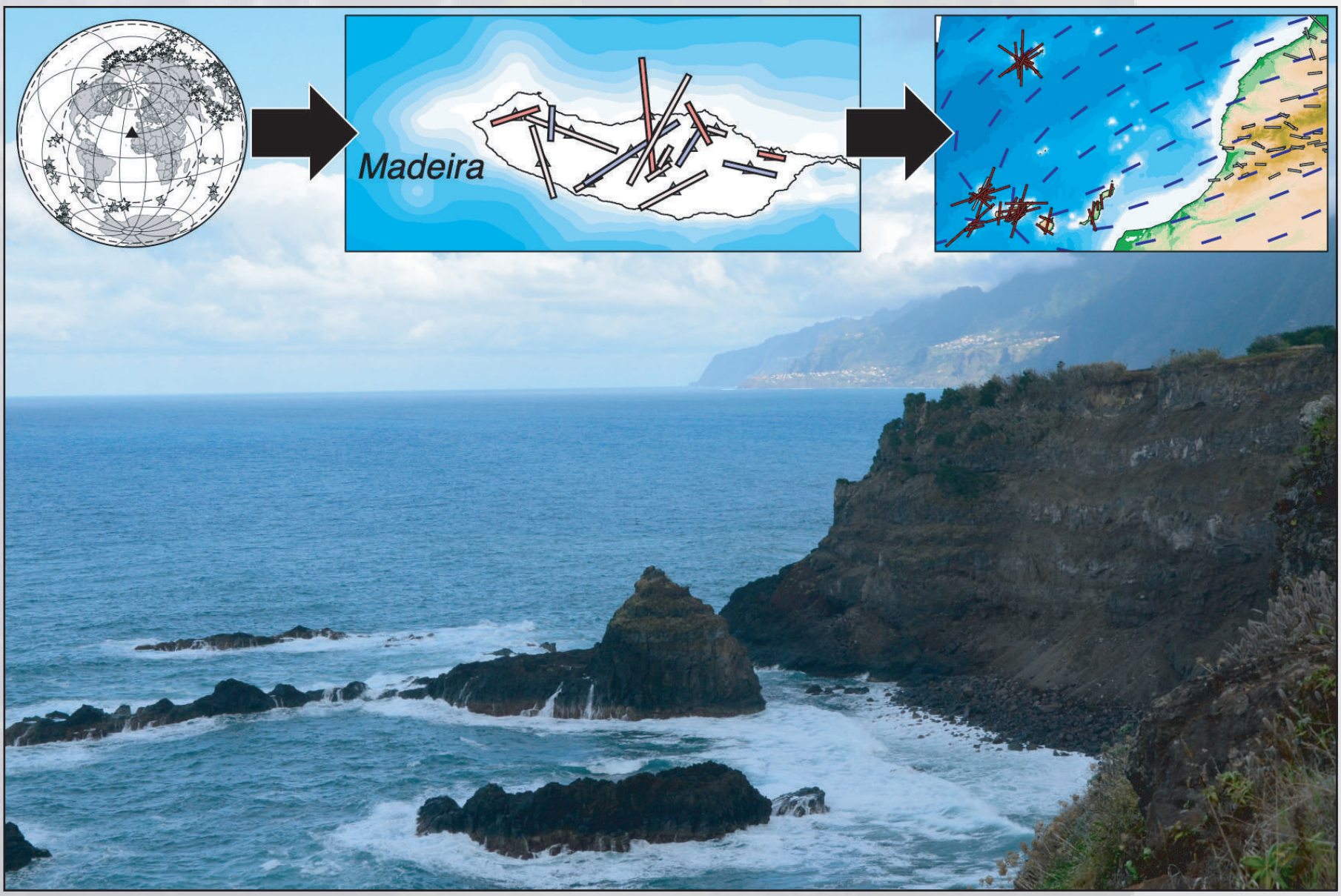
SOLID EARTH SEMINARS

OBSERVING HOTSPOT ANISOTROPY BENEATH MADEIRA AND CANARY ARCHIPELAGOS WITH LOCAL AND TELESEISMIC SHEAR WAVE SPLITING



WHAT'S THIS ABOUT?

As part of the SIGHT project, we have been observing seismic anisotropy beneath the Madeira and Canary archipelagos using shear-wave splitting. We collected data of local and teleseismic (for us: ~10000 km distance) events from a total of 18 stations in Madeira and 43 stations around the Canary Islands. With that detailed setup we are able to distinguish multiple layers of anisotropy, caused by a variety of sources, such as asthenospheric mantle flow, anisotropy frozen in the lithosphere, and crustal features. In both regions we can see clear differences between western islands with active volcanism and eastern islands. The results on the western islands show patterns that hint towards stronger near-vertical movement in the mantle that is also affecting the mantle flow. This is a clear indication of two plumes in both areas, caused by the Canary Islands and the Madeira hotspots

ZOOM

David Schlaphorst

Instituto Dom Luiz, Portugal

JANUARY 13
Wednesday: 13:00

PASS: RG234_SES

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

U LISBOA | Ciências ULisboa | INSTITUTO DOM LUIZ | FCT Fundação para a Ciência e a Tecnologia

2021

Support of the Portuguese Foundation for Science and Technology through the project UIDB/50019/2020, Instituto Dom Luiz (IDL)