Temporary Broadband seismic stations deployments

- Portugal -









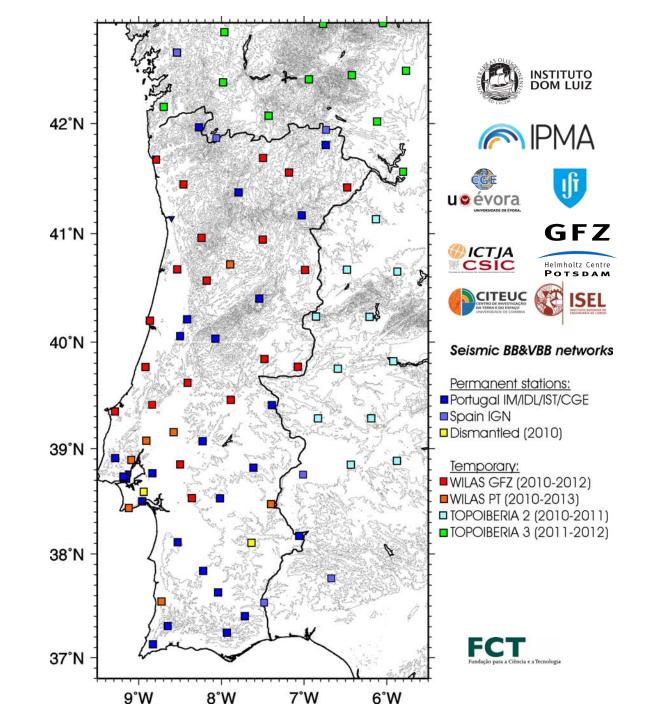




Project WILAS

West Iberia Lithosphere and Astenosphere Structure (PTDC/CTE-GIX/097946/2008)

- PI: Nuno A. Dias (IDL/ISEL)
- Partners:
 - IDL, ISEL, IPMA, IST, CGE-UE, ICTJA, GFZ, CITEUC
- Temporary deployment of BB Seismic network
 - Period 2010-2013 (~24 months)
 - 20 stations GFZ + 7 national (IDL, IST, CGE-UE)
 - BB (30s) to VBB (60-120s)
 - Coupling with permanent stations
 - ~65 stations (BB & SP)
 - > 50 stations with simultaneous operation
 - Interstation distance ~50 km
 - Data storage: GEOFON (GFZ), IPMA, IDL
 - Current Access: GEOFON/ORFEUS



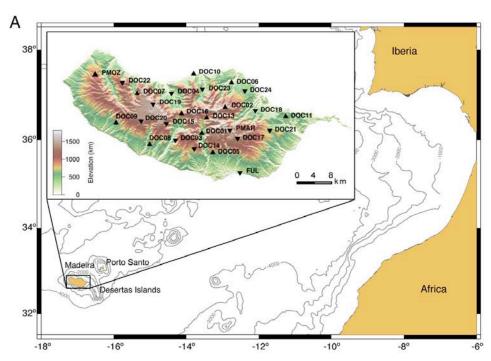
Project DOCTAR (GFZ, UnivPotsdam)

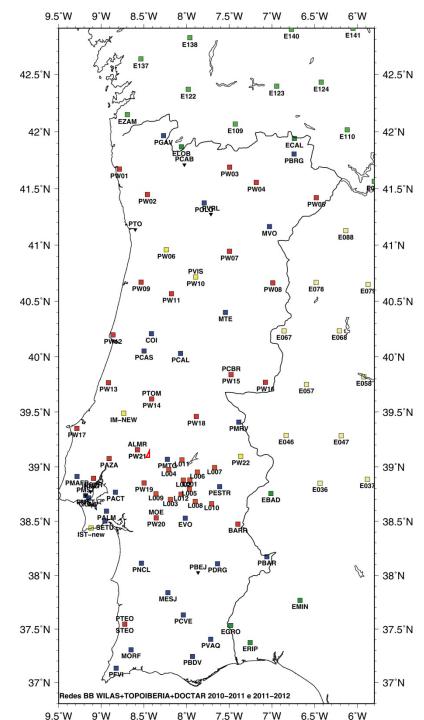
- PI's: Torsten Dahm & Frank Krüger
- Local (PT) coordinators: Luís Matias & Nuno A. Dias
- Temporary deployment of 2 BB Seismic antennas
 - Period: 2011-2012
 - Madeira island: 12 BB (60s) stations + 12 SP (5s) stations
 - Mainland Portugal: 12 BB (60s) stations
 - Overlap and integration with the WILAS network



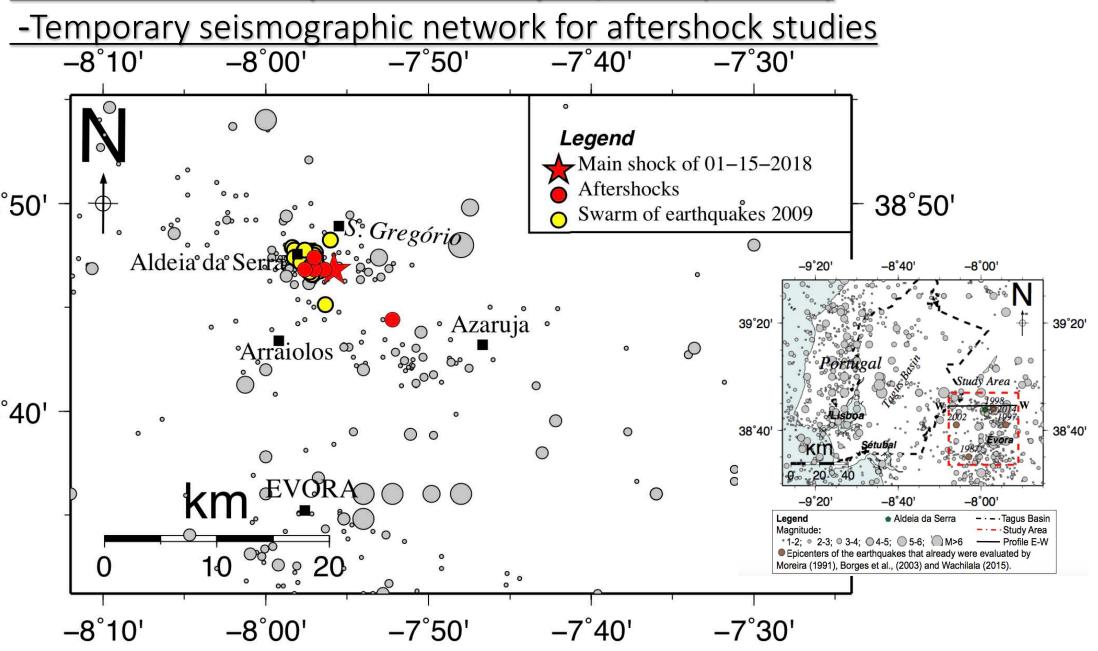








The Arraiolos earthquake of January 15, 2018 (M = 4.9)



The Arraiolos earthquake of January 15, 2018 (M = 4.9)













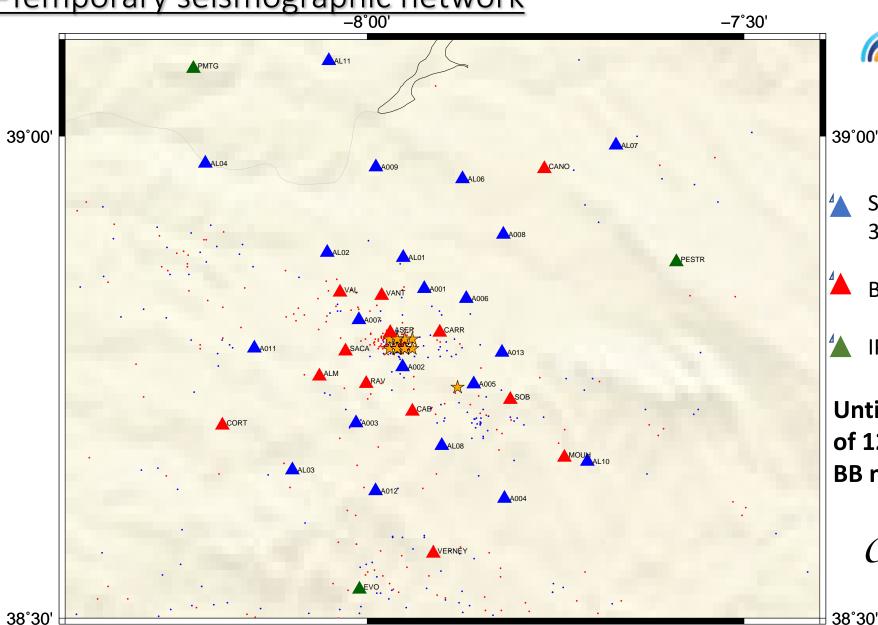
39°00'

 $-7^{\circ}30'$

- SP stations (2 Hz 4,5 Hz 1 Comp. and 3 Comp. - IDL)
- BB station (Guralp 6TD 30 s Uevora)
- IPMA stations (BB)

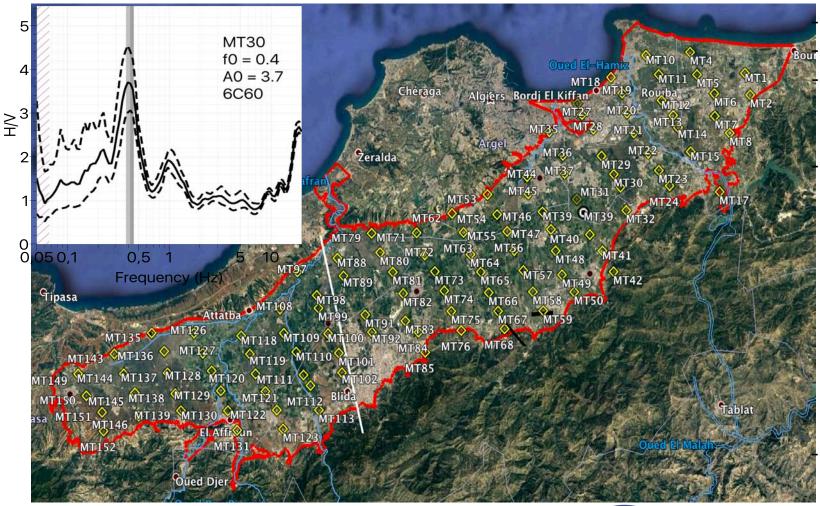
Until February 12 there were a total of 121 aftershocks detected by the BB network (Max. Mag. 3.1)

Ongoing Project



 $-8^{\circ}00'$

<u>PROJECT - PT-DZ/0003/2015</u> "MITMOTION - Ground motion prediction in Mitidja Basin - Alger" Modeling and inversion of the microtremor H/V spectral ratio in the **thickness** and **velocity** structure of Mitidja Basin-Argel - for Seismic Hazard Studies



Instruments: Guralp 6TD BB - 30 s
~120 min records
5 Km separation between profiles and
2.5 km along the profile

SIMILAR PROJECTS

- LTV Basin Portugal for thickness and velocity structure for Seismic Hazard Studies
- South Angola for determination of the **thickness** of the **Kalahari** sands.

PI: José Borges (ICT/UE)











Ongoing Project