

# Los Satélites Artificiales y la modelización de fenómenos geodinámicos activos: terremotos y volcanes

Manuel Berrocoso, Alberto Fernández, Alejandro Pérez, Belén Rosado

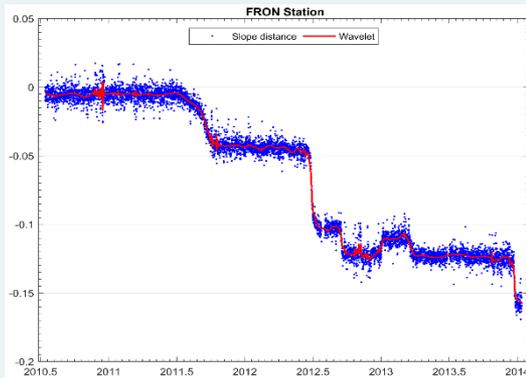


- ❑ **Modelización matemática de fenómenos naturales**
  - **Análisis de series temporales: geodésicas, geotérmicas y oceanográficas**
  - **Modelos predictivos**
- ❑ **Análisis espacio-temporal con sistemas de información geográfica**
- ❑ **Control de calidad de redes geodésicas**
- ❑ **Modelización de la influencia atmosférica en la propagación de la señal de los satélites GPS**
  
- ❖ **Aplicaciones: Antártida, Andalucía, Islas Canarias, México, Nicaragua**
- ❖ **Software: Matlab, Python, R, QGIS**

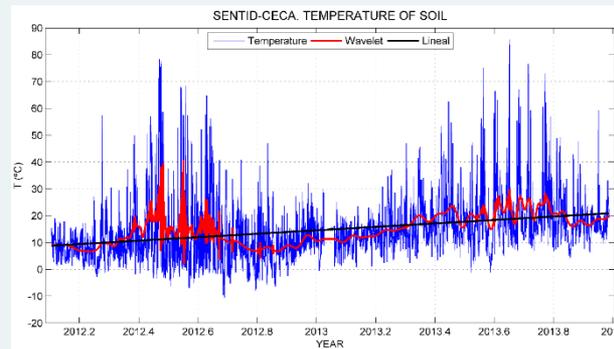


## ❑ Análisis de series temporales:

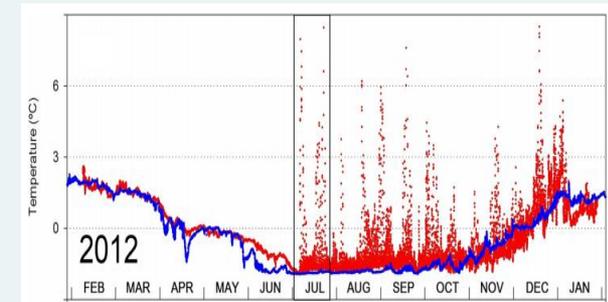
### ➤ Geodésicas



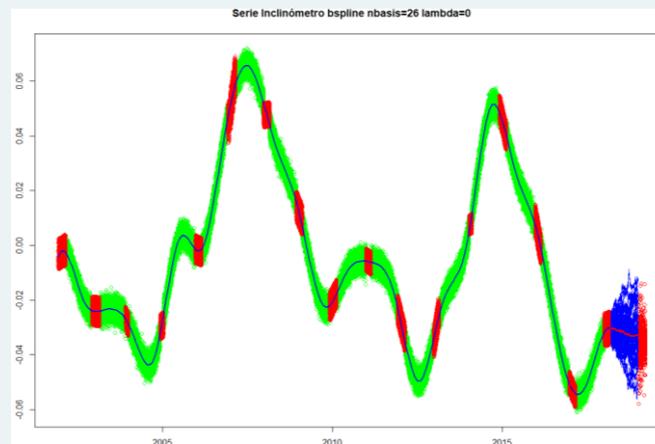
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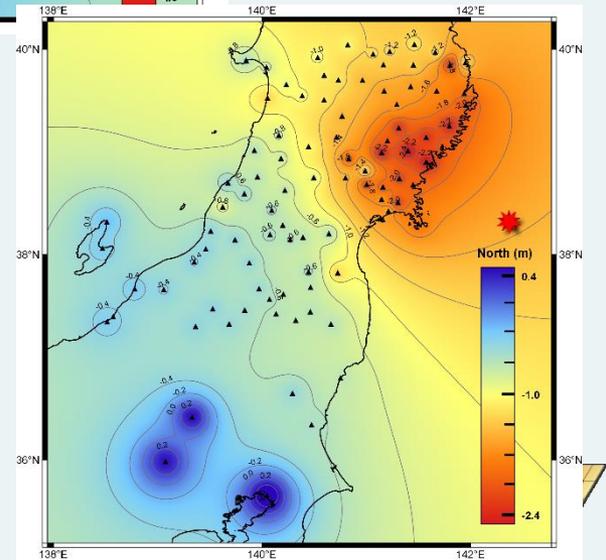
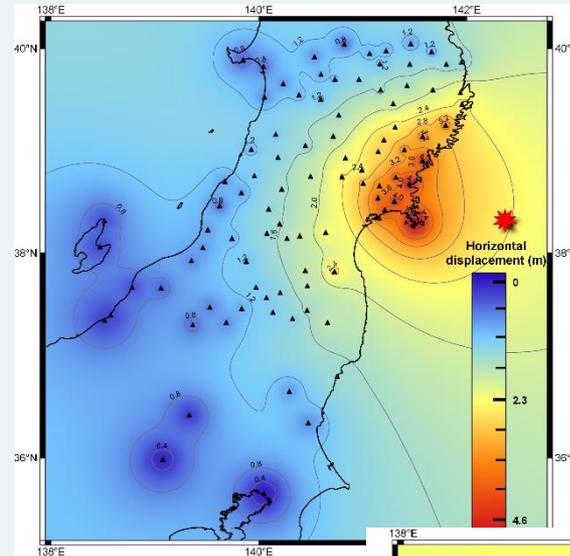
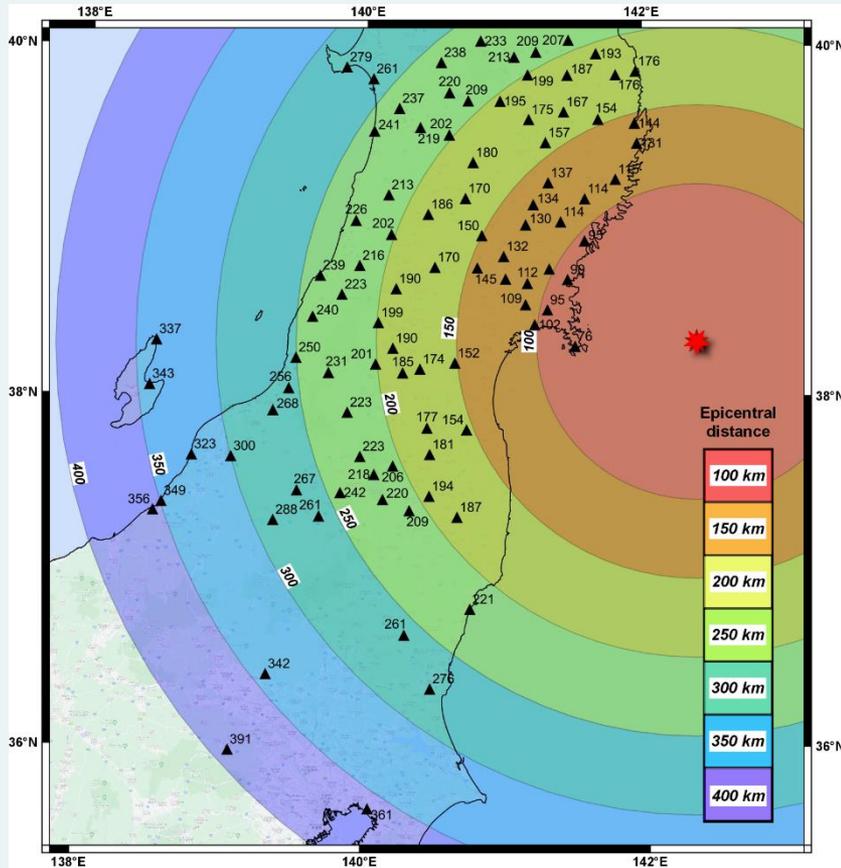


### ➤ Oceanográficas

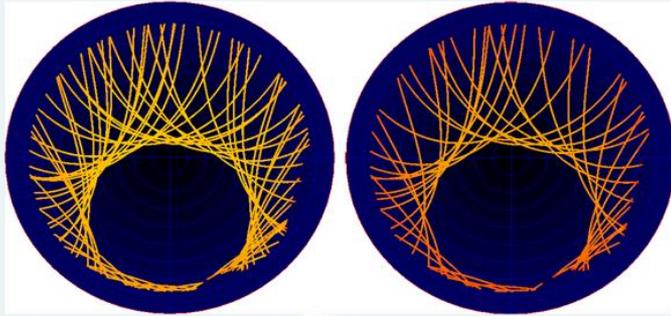


## ❑ Modelos predictivos



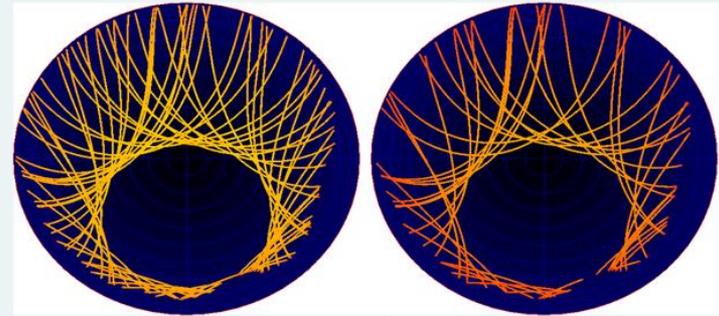


# Control de calidad de redes geodésicas



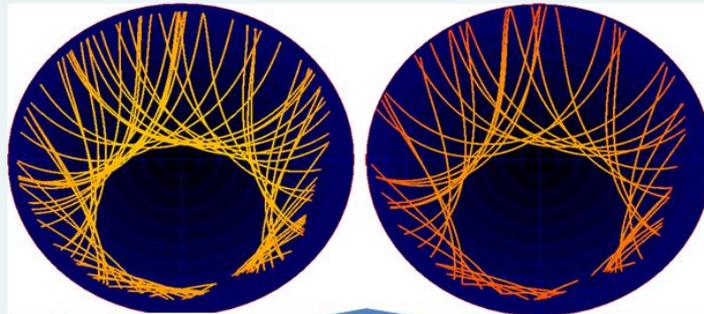
Campaña 2011/12

Satélites sin L2: **9**



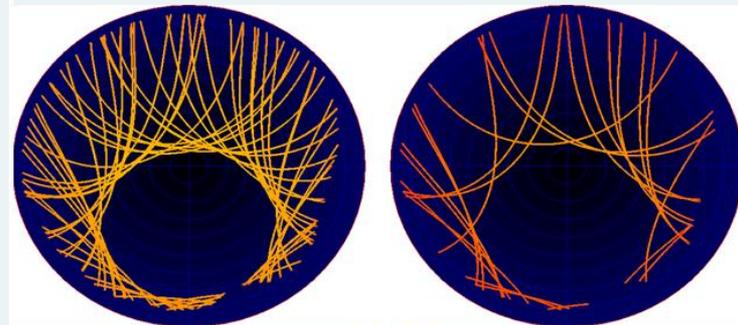
Campaña 2012/13

Satélites sin L2: **10\***



Campaña 2013/14

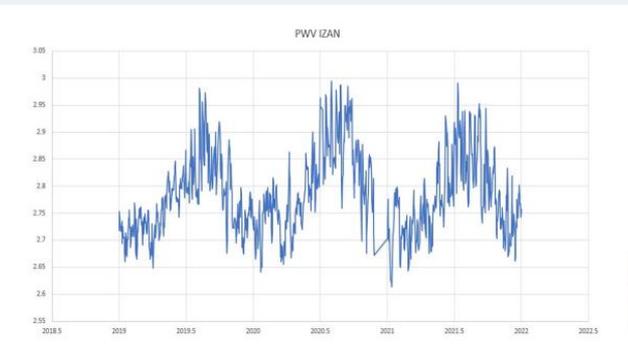
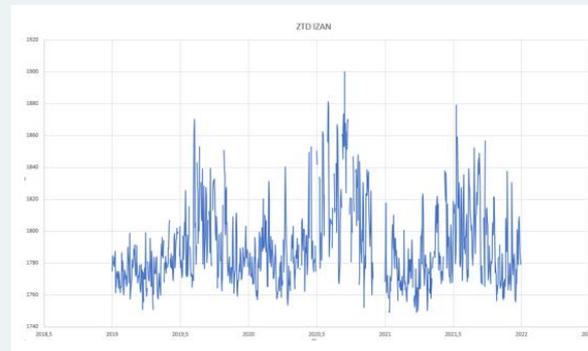
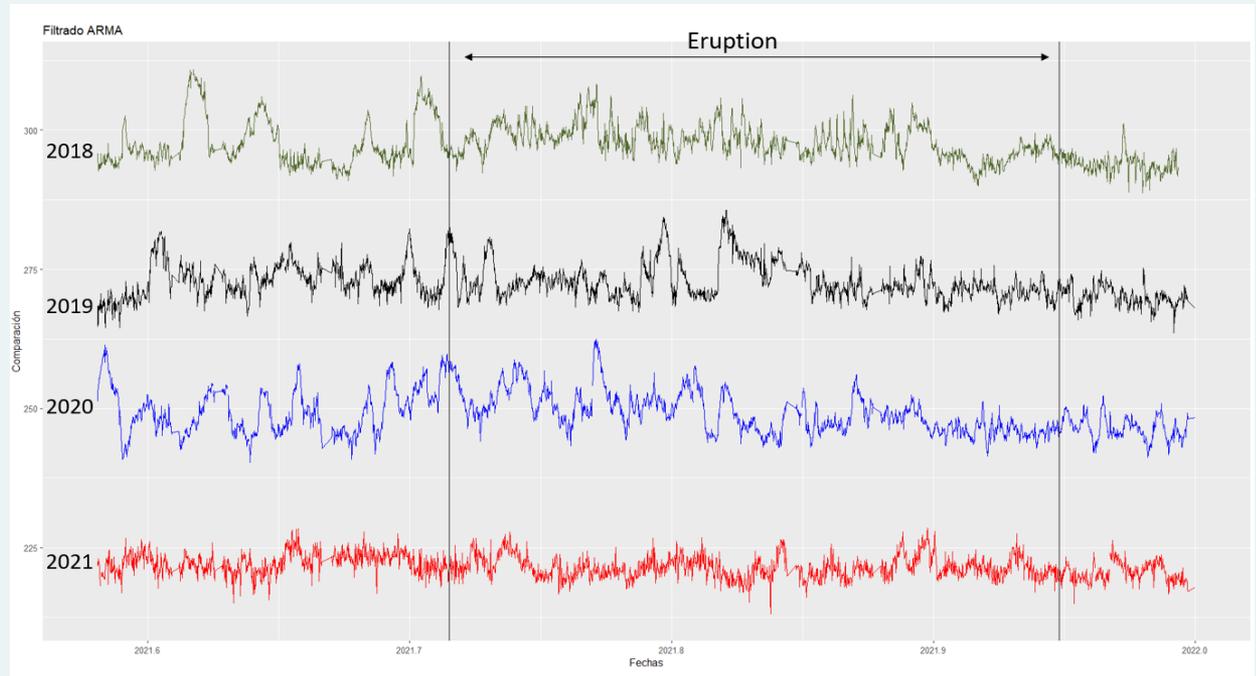
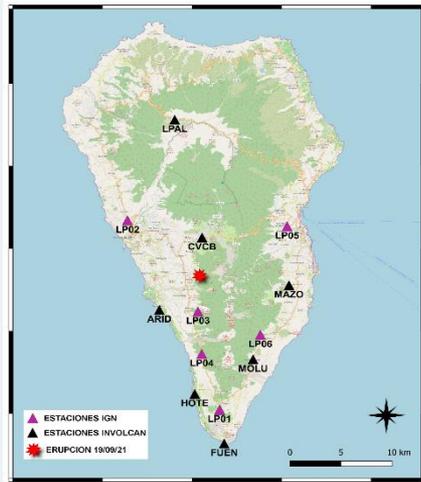
Satélites sin L2: **11**



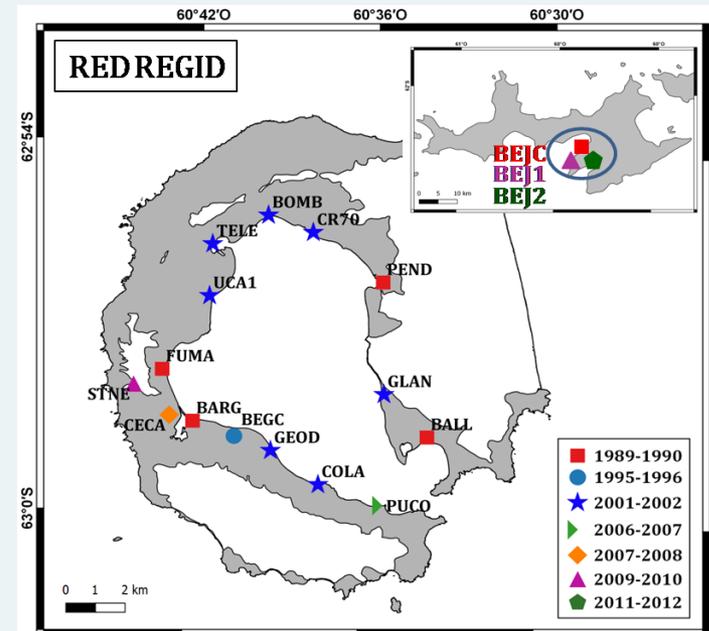
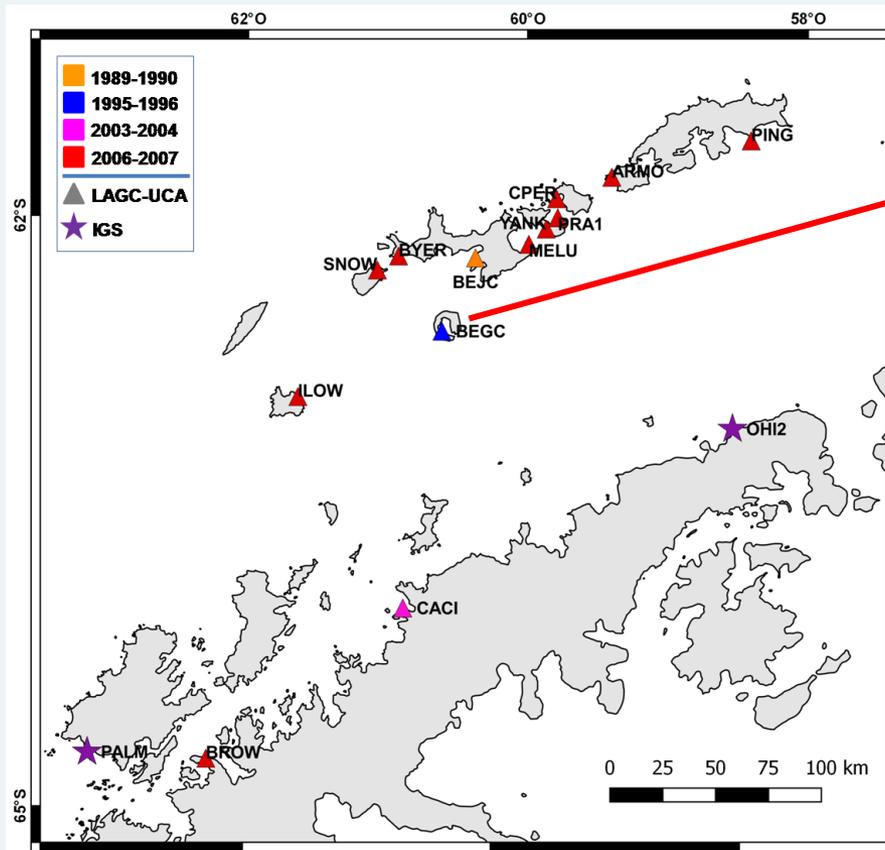
Campaña 2016/17

Satélites sin L2: **19**

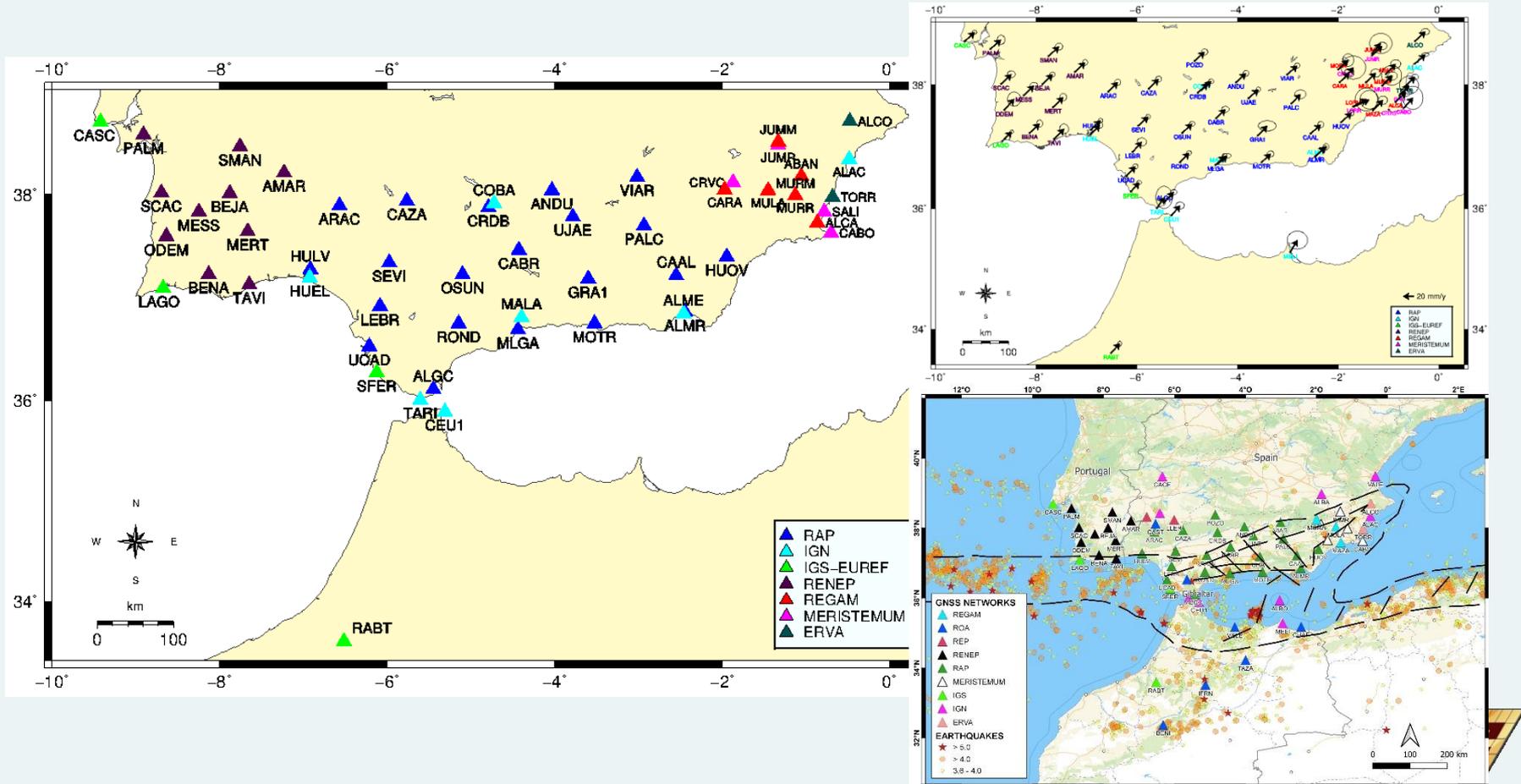




❑ Antártida: Islas Shetland del Sur, Isla Decepción

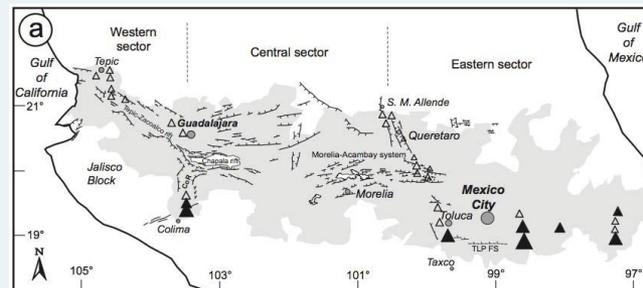


□ SPINA: Sur de la Península Ibérica y Norte de África

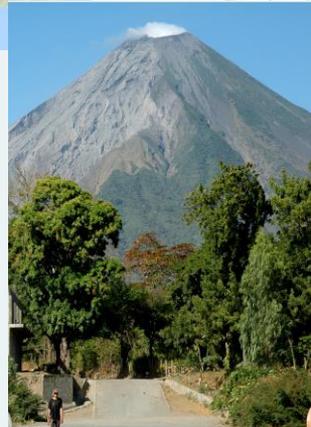
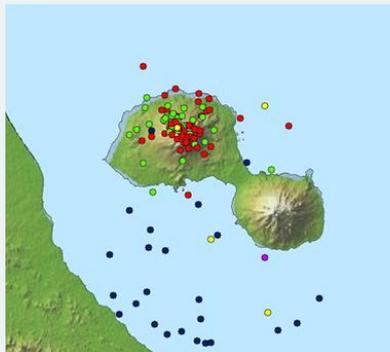
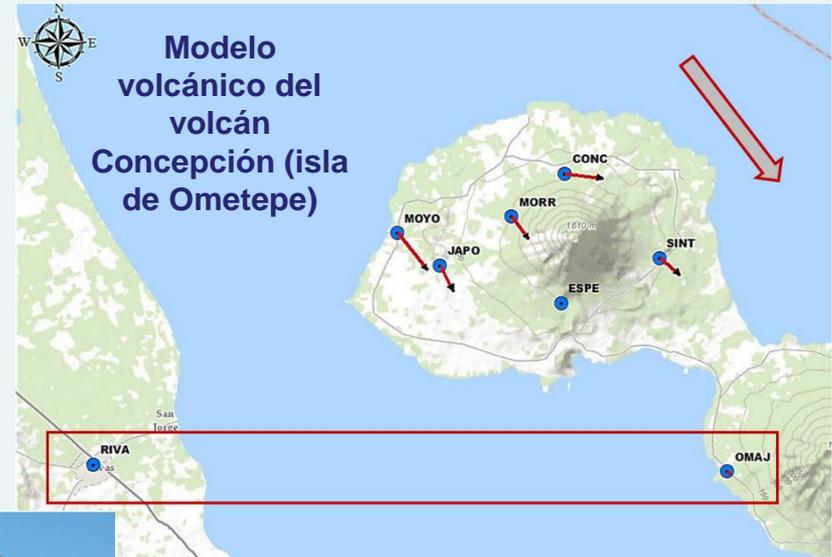


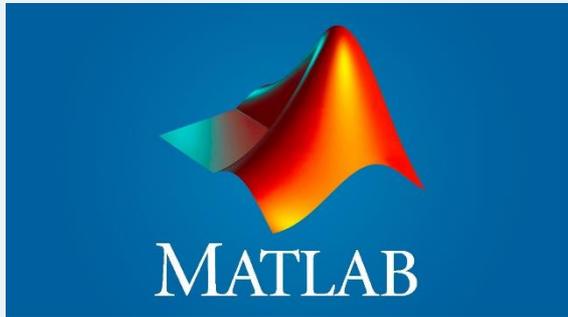


## ❑ México: Volcán Popocatepetl



## ☐ Nicaragua: Volcán Concepción





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