

IGN Copernicus Relay and National  
Land Reference Centre activities for  
Dissemination of InSAR techniques  
among potential GEP users in Spain

NoR ID 272093

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# Objectives

1

Disseminate InSAR methodologies to measure ground deformation from space

2

Use cloud-computing resources

3

Attract potential InSAR users of Spanish Public Administration Sector.

# Description

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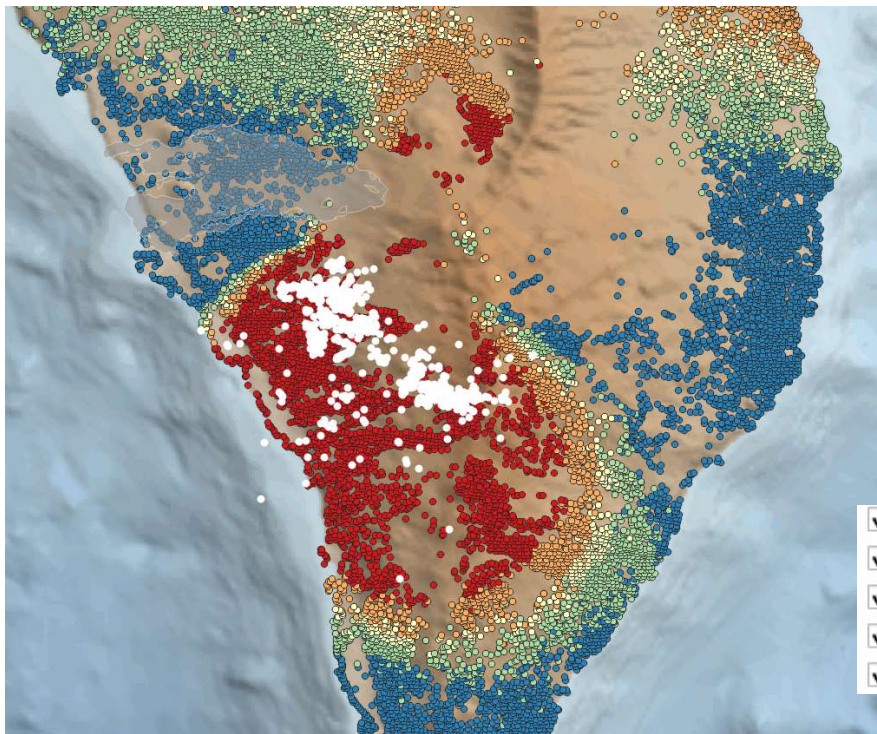
- Time series InSAR require demanding resources. GEP offers its own to provide results within some hours without almost any effort from user side.
- Visualization tools are quick and easy to do a first analysis of results.
- Successful cases in GEP help to understand how InSAR methodologies can help in many application areas

# Results

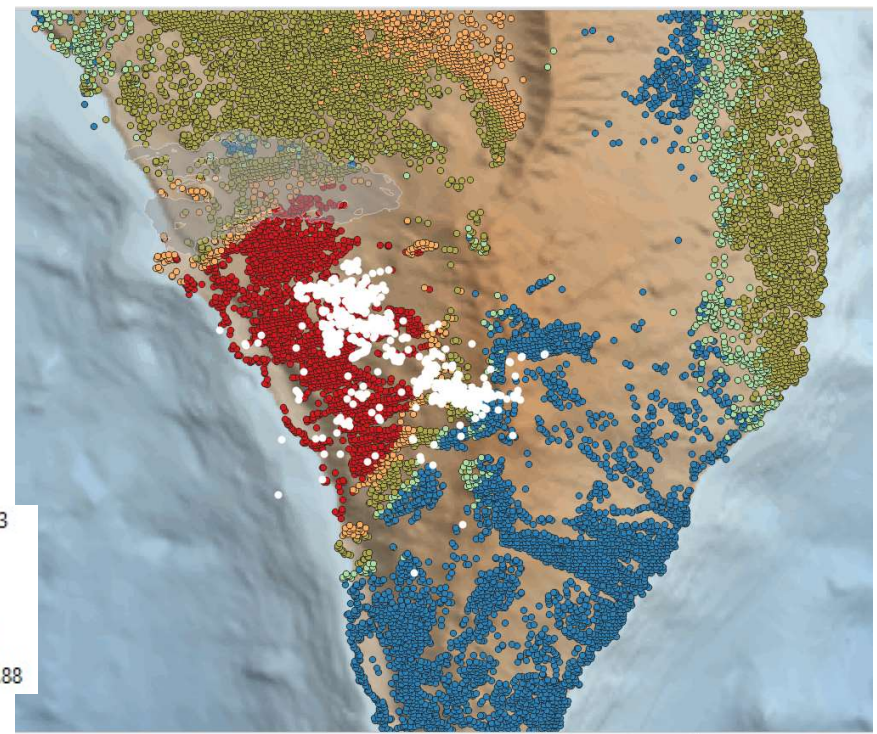
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- Snapping processing La Palma eruption (Spain)
  - Track 169 2018 – 2021 (S1A)
  - Track 60 2018 – 2022 (S1A)
- Good point density, velocities and deformation time series similar to GNSS permanente stations and to PSBAS results, PS over lava flows.

# Results



Velocities cm/year (Track 169)



Velocities cm/year (Track 60)

- -25.99 - -3.3
- -3.3 - -2
- -2- 2
- 2 - 5.8921
- 5.8921 - 36.88

# Benefits to Society

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- InSAR techniques are not commonly used in Spain but they are extremely useful to detect deformations for example in infrastructures (roads, railways...). Many participants in the course belong to infrastructure maintenance and planning. Main aim of the course was to show the potential of InSAR techniques for their case studies by using GEP platform which makes this objective easier through its functionalities.