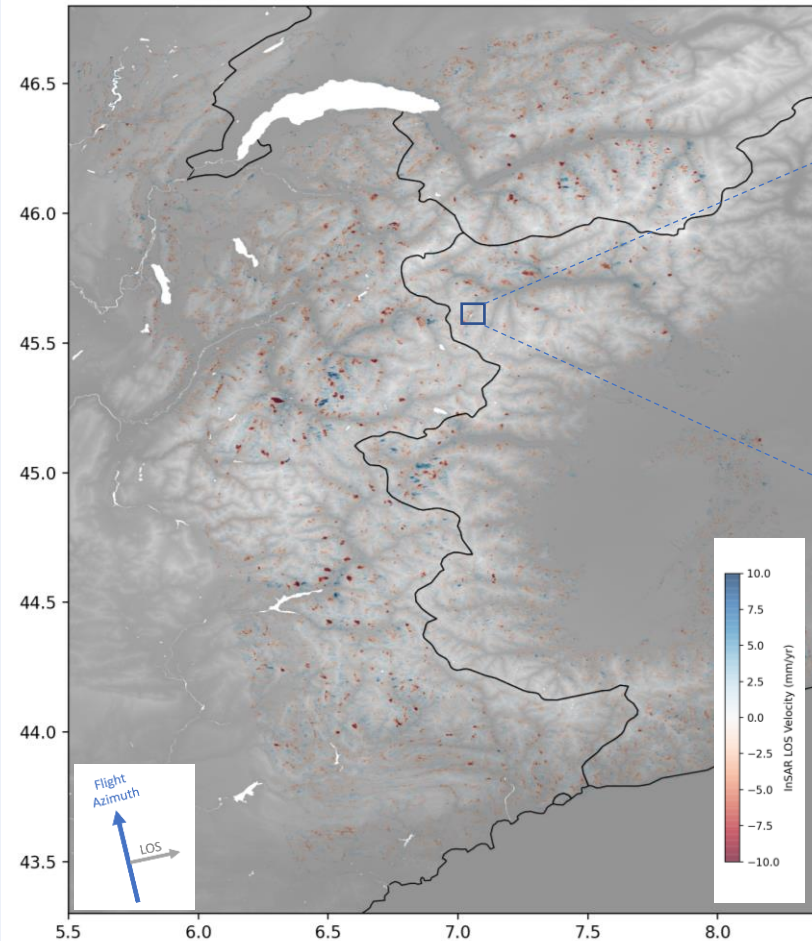


Four years of InSAR time series analysis reveals an unprecendent inventory of active DSGSD in the Western Alps

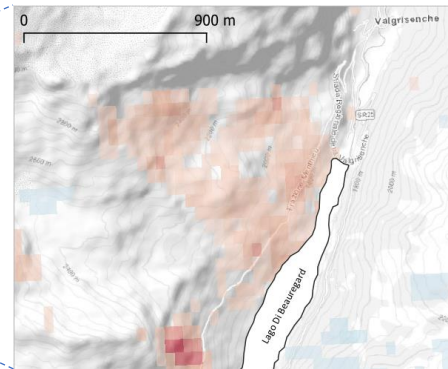
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(1) Université Grenoble Alpes, Université Savoie Mont Blanc, CNRS, ISTERre, IFFSTAR, 38000 Grenoble, France (2) IRSN, Fontenayaux-Roses, France

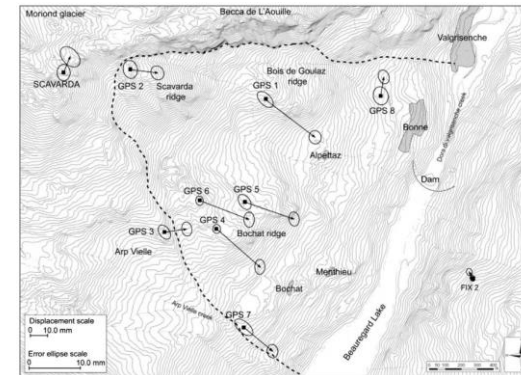


*InSAR LOS Velocity Map for the ascending A88
Sentinel 1 track, background SRTM DEM*

Beauregard Deep Seated Gravitational Slope Deformation (DSGSD) (Aoste Valley) Monitored by Barla et al, 2010



LOS Velocity map zoom on Beauregard DSGSD



Barla et al. 2010

■ Good agreement with GPS measurement

■ High potential for small scale and large scale comparison

Geomorphological inventories :
Crosta 2013 > 1000 DSGSD (Alps)
Blondeau 2021 > 1400 RSF (Western Alps)

InSAR processing keypoints

- Sentinel-1 A & B
- NSBAS processing chain *Doin et al, 2011*
- MT-Temporal InSAR
- 173 dates between 2014 and 2018
- 700 + interferograms

Inventory keypoints

- ~2000 polygons over the western Alps
- Spatial resolution : 120*80m
- Velocities from 2 mm/yr to 20 mm/yr
- Size between 0.3 km² and 12 km²

Ongoing work ...

Processing of the descending track D139