

INSAR Corner Cube at GRSM

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Abstract :

Calern's multi-technical geodetic observatory, is a co-location site for the Côte d'Azur Observatory, which host three different spatial geodesy techniques: an SLR/LLR station, a permanent DORIS station (since september 2018), and two permanent GNSS stations. Punctually, specialists from the " Institut Géographique National " (IGN, France) measure the local ties between our different instruments. The objective is to determine the global biases that may exist between each of these techniques. However, local movements (deformation of soil) may take place, that's why punctual local ties measurement are insufficient. The effective alternative we choose has been the deployment of an INSAR corner cube on our multi-technical site in the summer of 2018. Indeed, the European Space Agency (ESA) offering the SAR images of the Sentinel constellation (S-1A and S-1B), this allows us PSInSAR analyzes thus providing a systematic monitoring of the deformation of the soils of our co-location site, with great precision.

After having recalled in the introduction the method of local ties measurement made by the colleagues of the IGN, this presentation will be articulated then around the design, the installation of the corner of cube, and the choice of the orbit of satellite.

Topics code :

Session 2 : **Improving current station performance**

- Local ties

Type :

Oral presentation