

→ POLINSAR 2013

The 6th International Workshop on Science and Applications of SAR Polarimetry and Polarimetric Interferometry

Polarimetry & DInSAR, Polarimetry & PSI

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Question 1: *About the use of distributed targets*

Subsidence monitoring has been classically considered in terms of point targets, either selected from amplitude or coherence information. Which is the role of distributed targets in subsidence monitoring ?

Does dual-/full-polarimetry improve accuracy, and in case of a positive answer, how much ? Does coherence provide a suitable measure to qualify distributed targets for subsidence monitoring ?

Question 2: *About the use of polarimetric data. Answer to seed questions n.3 and n.4 of PolInSAR 2013 recommendations*

Are there statistics on the stability of scattering matrix for PSI ? Which polarization is mostly stable or less affected by noise ?

It is demonstrated that optimization techniques improve phase quality. Should these optimization approaches be adapted specifically to the DinSAR&PSI problem?

Would it be necessary set-up a campaign, with collection of ground-truth data, to assess the benefit of polarimetry?

Question 3: *About the use/comparison of single-, dual- and full-pol data. Answer to seed question n.4 of PolInSAR 2013 recommendations*

Could it be possible to compare quantitatively the gain of full-pol data in front of single- and dual-pol data?

Is it expected an improvement in the use of Sentinel dual-polarization scheme with respect to single polarization ? Which combination do we recommend ?

Question 4: *About temporal homogeneity*

Nowadays, do we have a clear understanding of the temporal behavior, the statistical characterization and indeed about the concept of homogeneity of temporal polarimetric data for their use in DInSA&PSI applications?