Summary and Concluding Remarks

Summary of a Summary

S-1 TOPS InSAR Data Analysis

No significant differences from experience gained by the community in processing of StripMap + SpotLight (+ ScanSAR) data over two decades

– but –

Overlap zones offers view angle diversity (redundancy) that can be exploited:

- Tiny (azimuth) coregistration errors can now be detected and mitigated.

- For significant motion (e.g. glaciers, large seismic events), this also enables measurement of the along-track motion component, though with limited sensitivity.

Summary of a Summary

S-1 TOPS Time Series Analysis

Ongoing R&D, many open questions

– but –

Opportunity to do more

Main open questions:

- When/How/Whether to stitch bursts?

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S-1 TOPS Time Series Analysis

Ongoing R&D, many open questions

– but –

Opportunity to do more

S-1 operational acquisition plan (from stacks perspective)

- Unprecedented **sampling in space and time** offers new and exciting possibilities for **operational deformation monitoring**

- …we should be very careful not to underestimate the impact of the **data volumes** that need to be handled

S-1 in science context

Open questions:

1. Preparing the ground for better geophysical models – how to exploit the regular and systematic data acquisition plan?

2. Assessing applicability of S-1 InSAR data as an alternative source of information for, e.g. constraining numerical weather models

3. Understanding and addressing data volume related operational challenges

Interpretation challenges

Case study: Iraq/Turkey long stripe interferogram
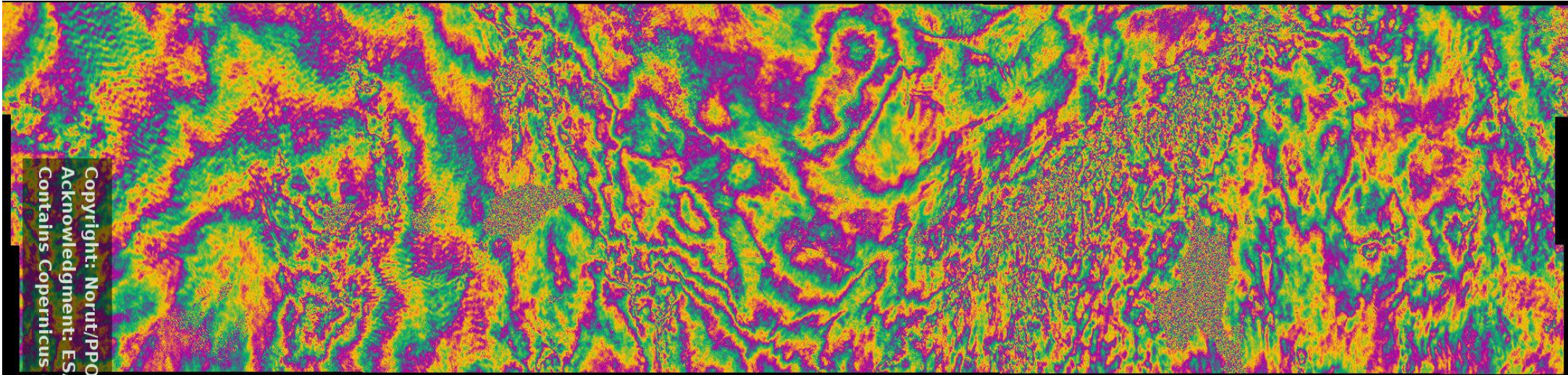
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