

# *Measuring Interseismic Deformation of the Dead Sea fault from along-track Sentinel-1 TOPS Interferometry*

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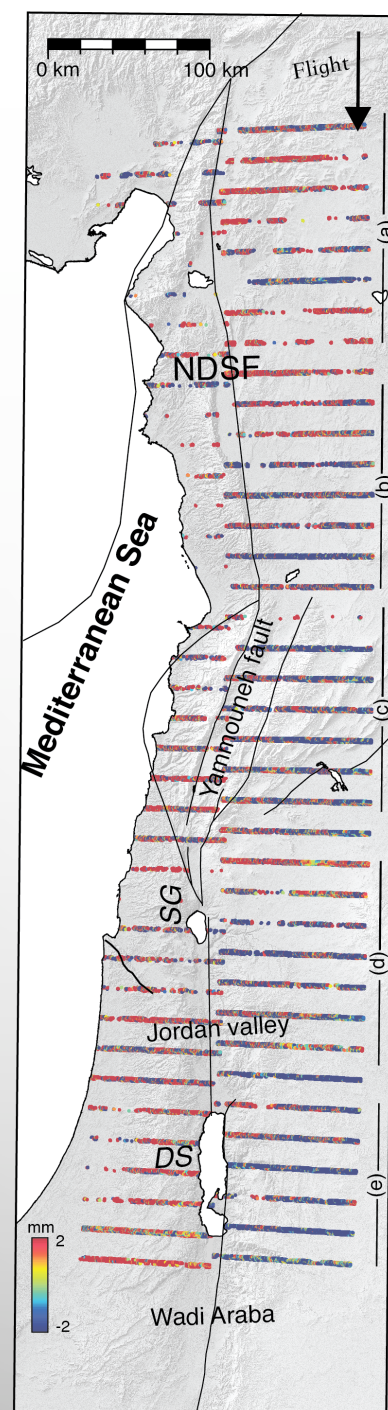
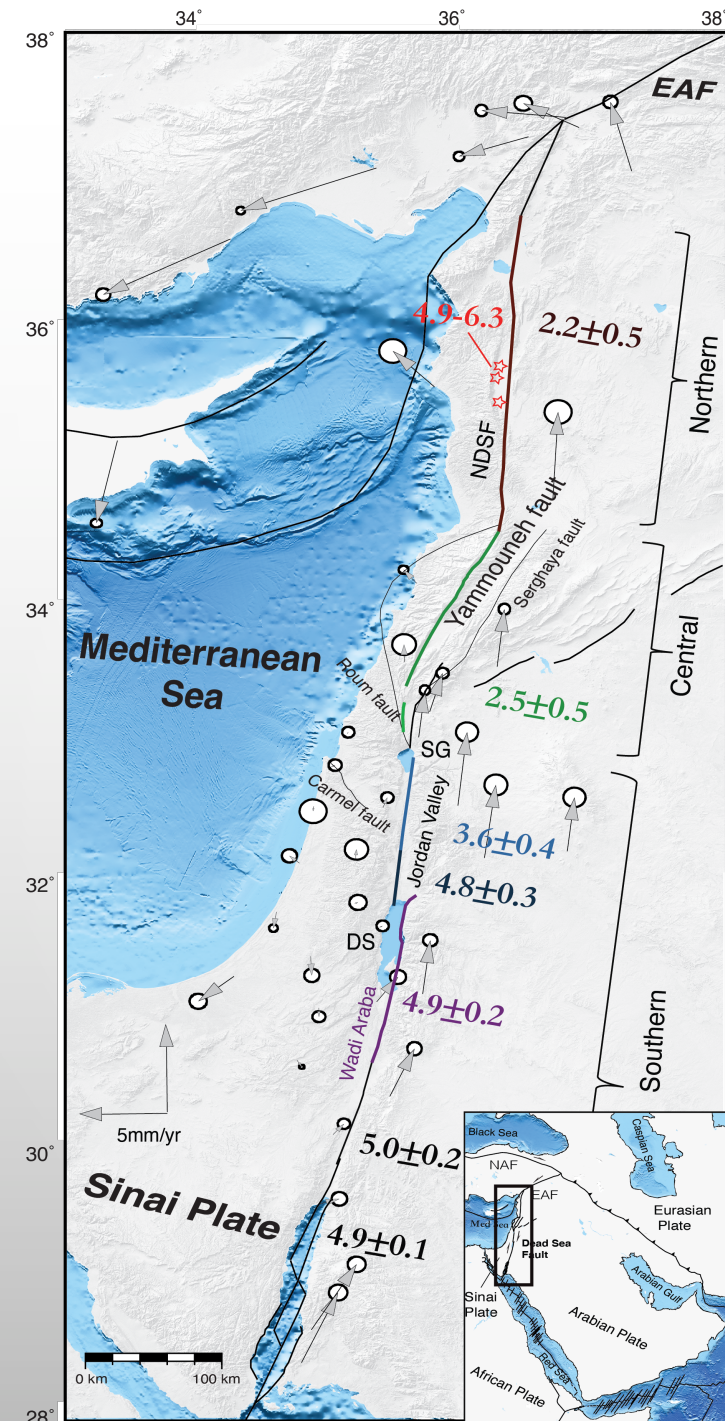
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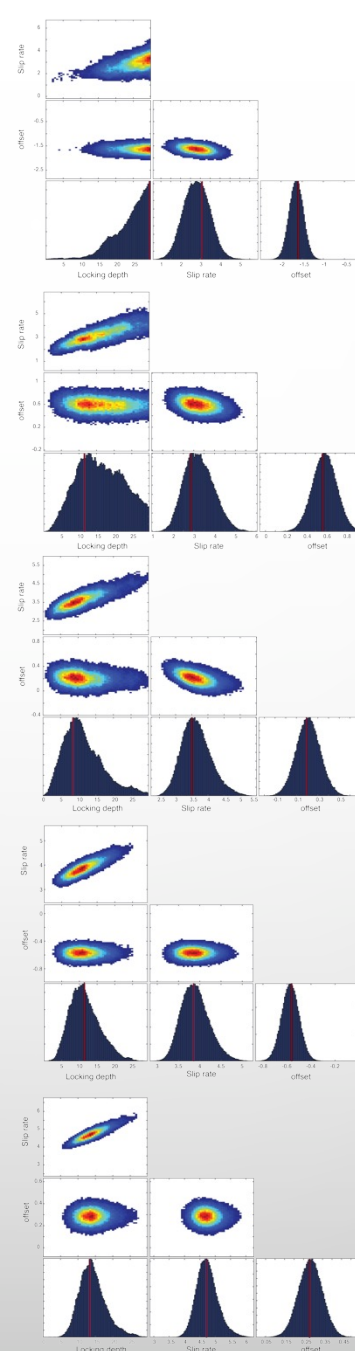
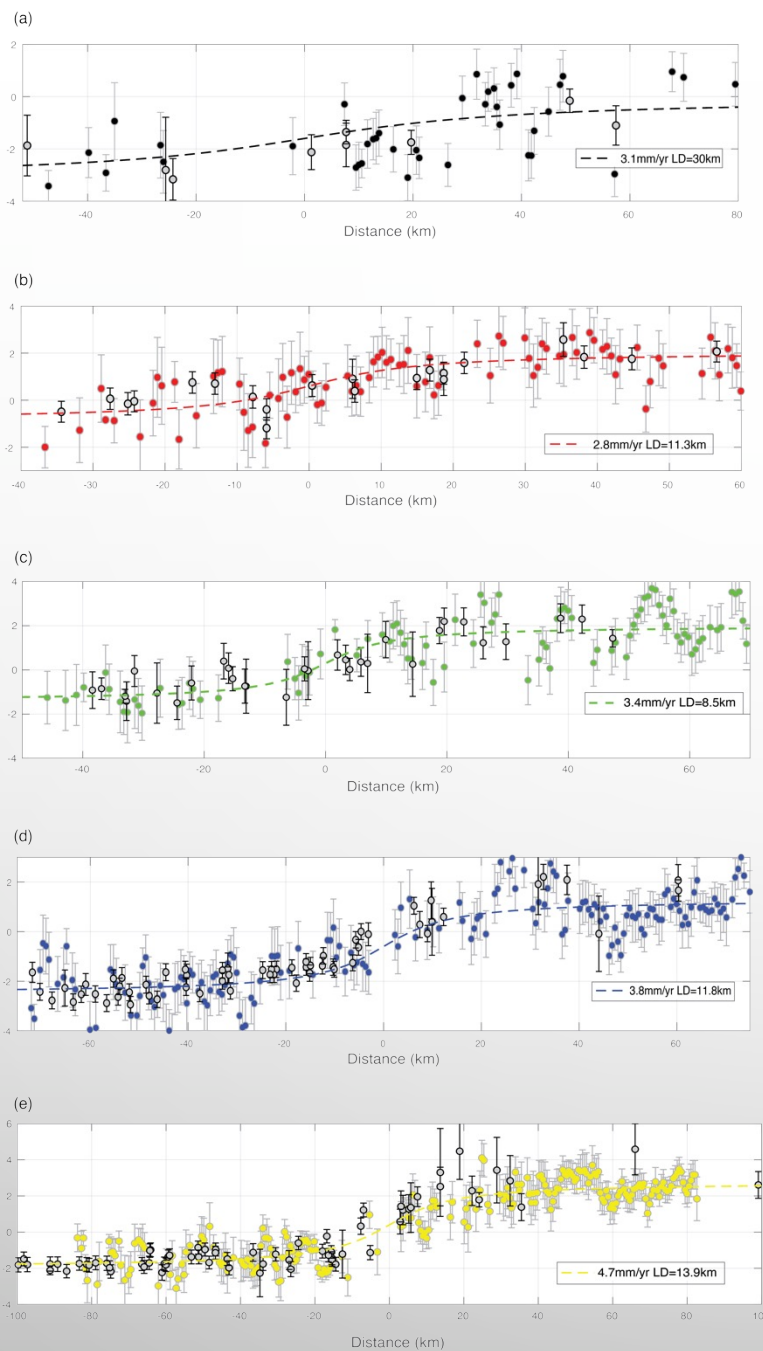
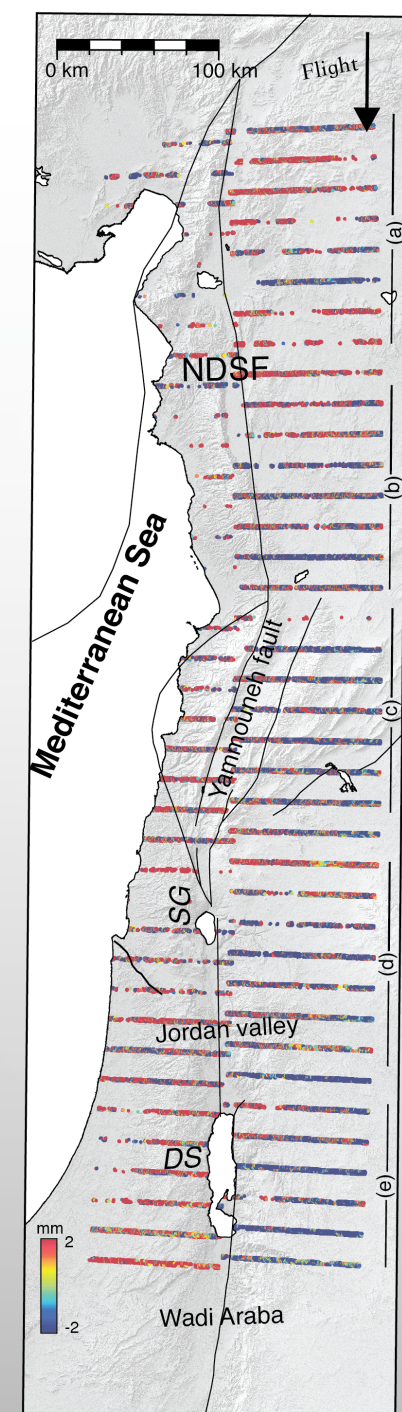
## Data

- Sentinel-1 A&B 300+ images
- Time span: 2014-2021

## Method

- SBAS (Small baseline subset) – BOI (Burst-overlap Interferometry)
- Fault-parallel velocity
- Positive means moving towards to the south.

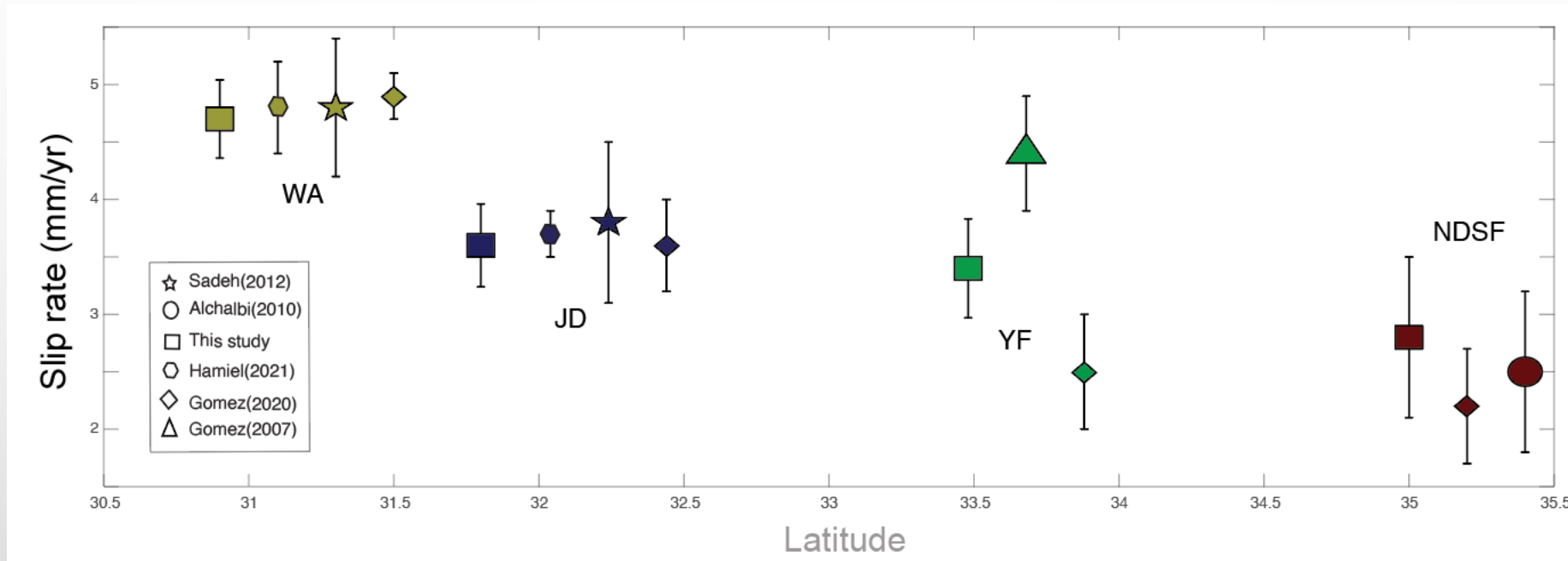




- (1) Fault parallel velocity
- (2) Stacking velocity profiles in (a),(b),(c),(d),(e)
- (3) Marginal probability distributions for each fault segment.

# Conclusions

- The slip rate decreases from south to north along the Wadi Araba (WA), Jordan valley (JD), Yammounh fault (YF), the Northern Dead Sea fault (NDSF).



Yellow, blue, green and red represents estimations along WA, JD, YF and NDSF, all studies for each segment are plotted in the same color with different symbols.

- The geodetic estimated slip rates in the central and northern segment are lower than long-term slip rate.



*Thank you*