

Seasonal active landsliding and hillslope activity in the southern Central Andes of NW Argentina

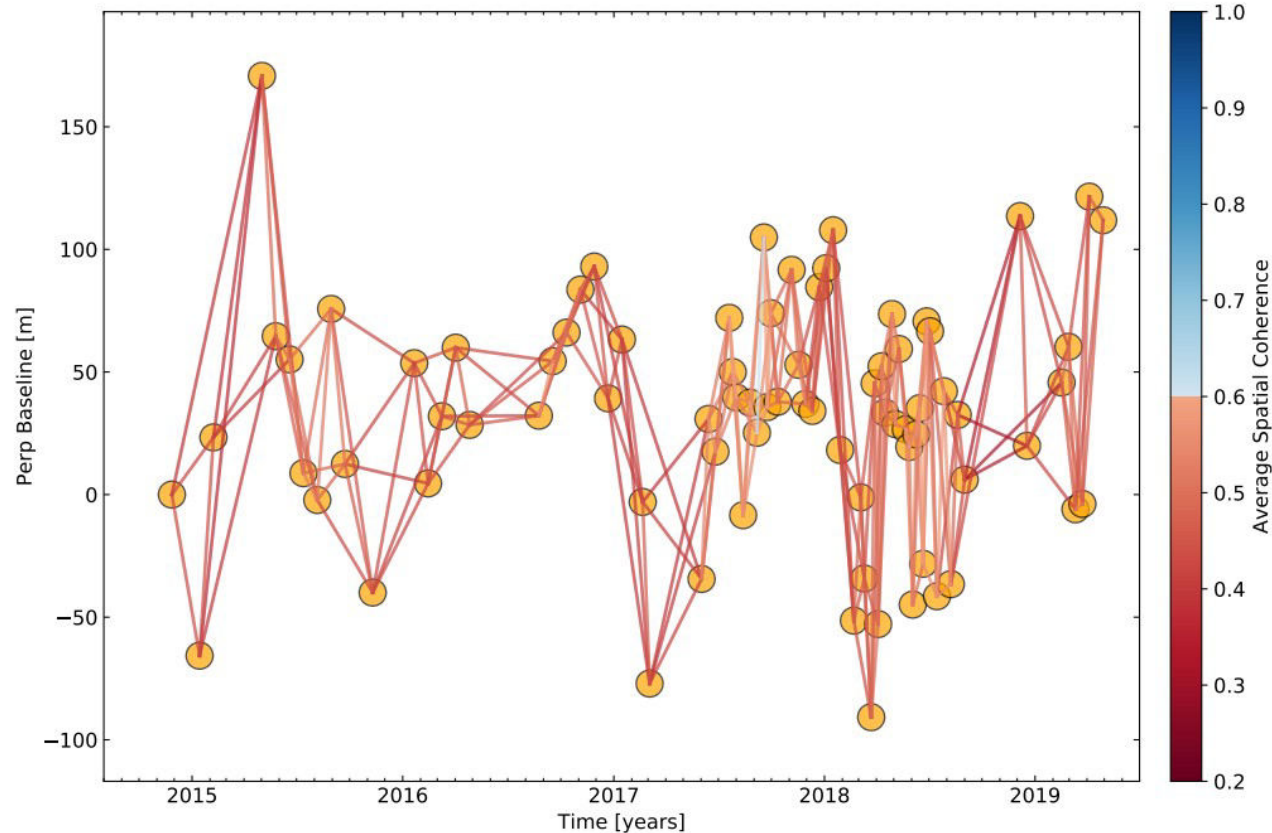
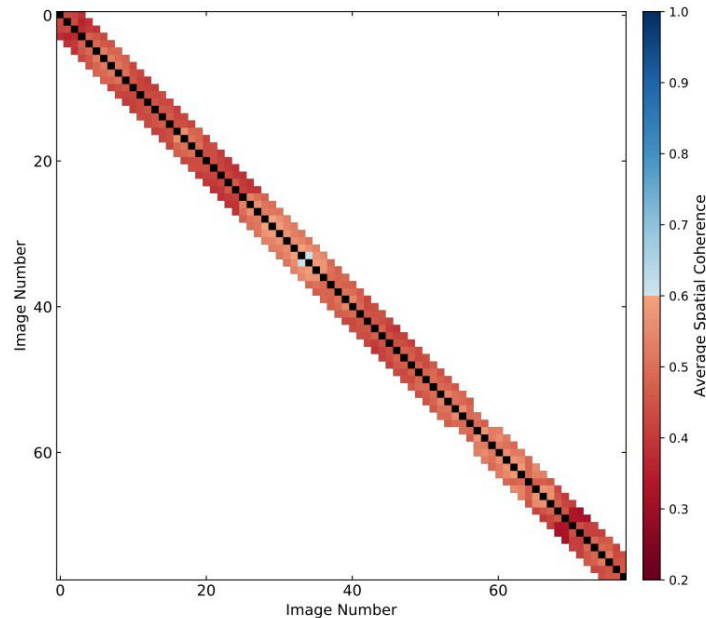
Mohammad M.Aref^{1,2} Bodo Bookhagen² Taylor T. Smith² and
Manfred R. Strecker²

¹Istanbul Technical University ²Potsdam University

8 May 2020

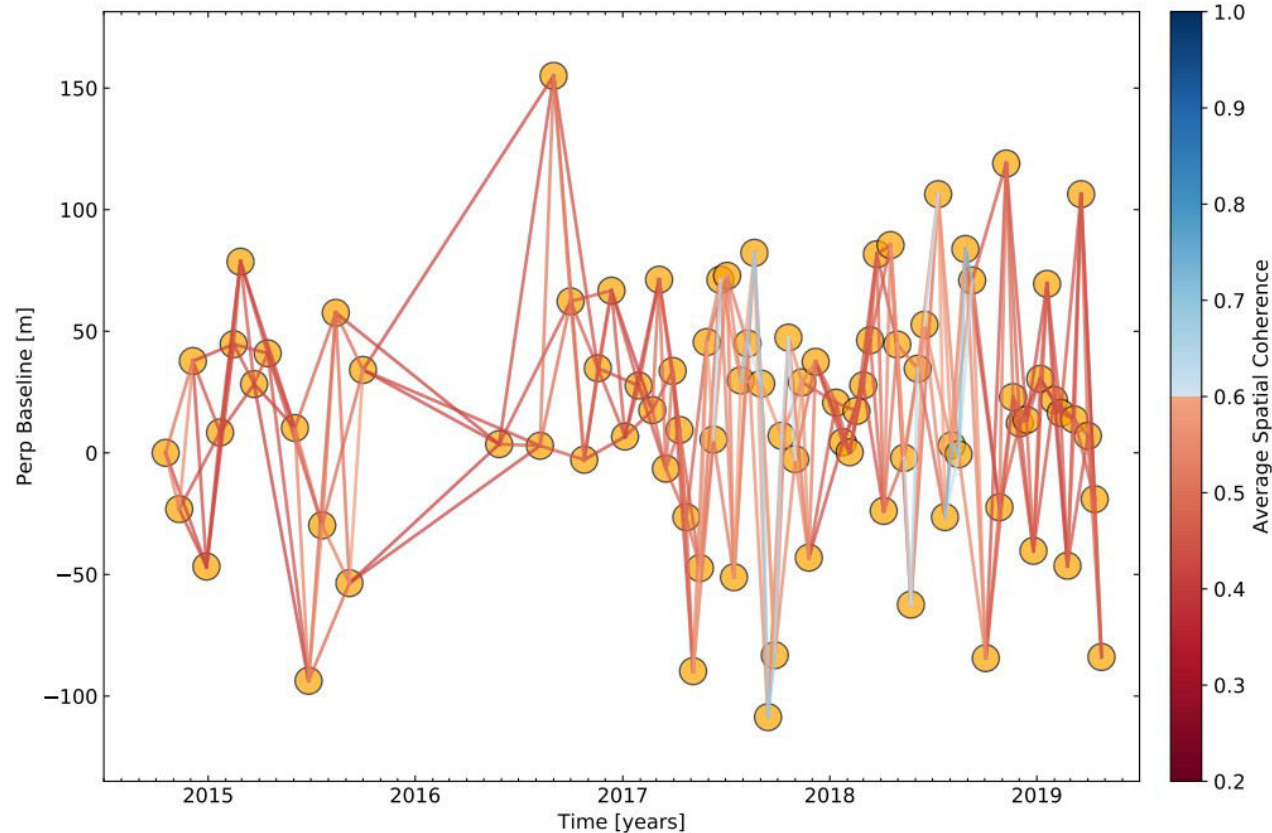
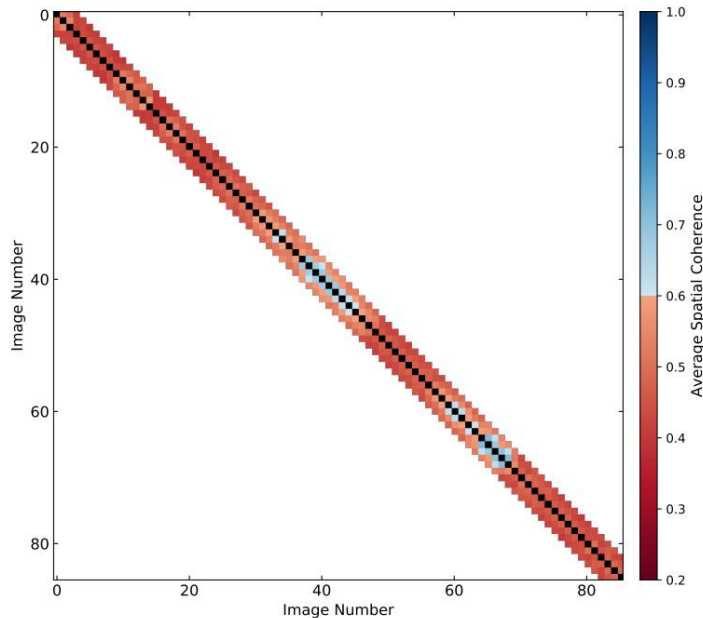
Sentinel-1 ascending (track 76)

- Oct 2014 to May 2019
- 225 interferograms
- azimuth looks: 3 (~45m)
- range looks: 9 (~30m)

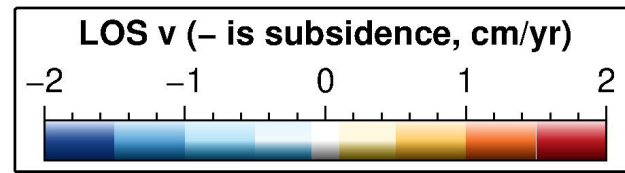
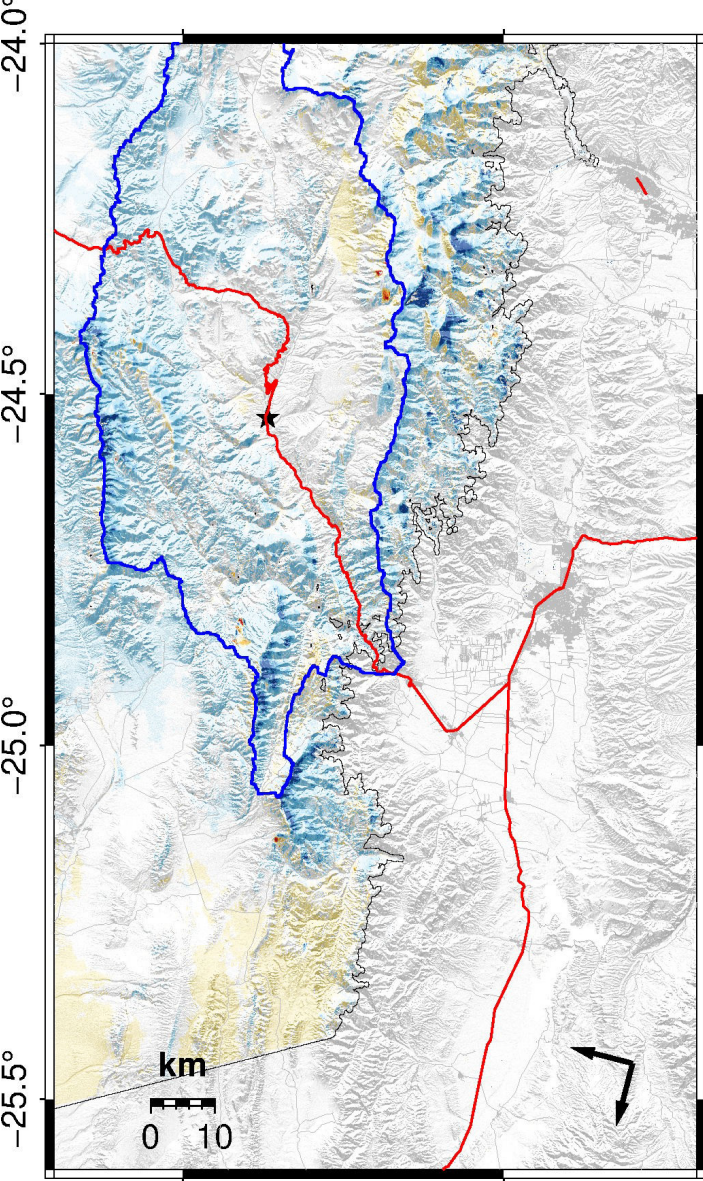


Sentinel-1 descending (track 10)

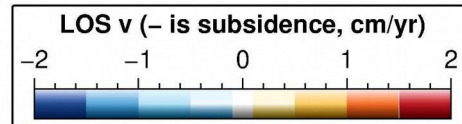
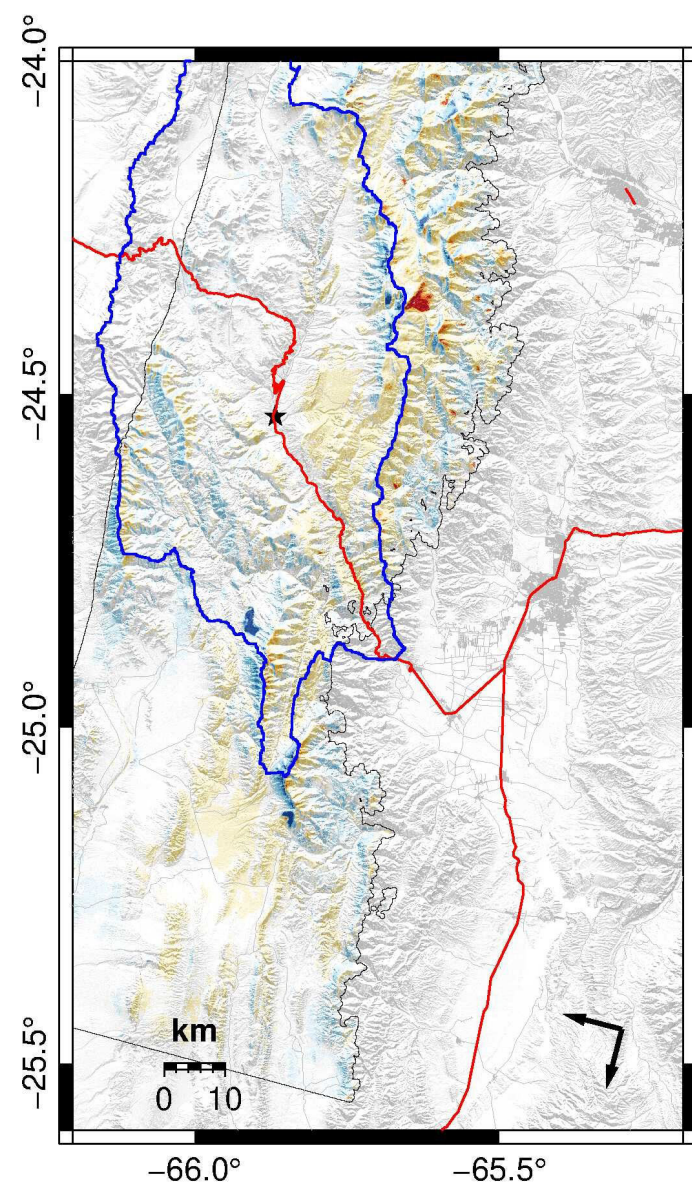
- Oct 2014 to May 2019
- 252 interferograms
- azimuth looks: 3 (~45m)
- range looks: 9 (~30m)



Sentinel-1 ascending (track 76)

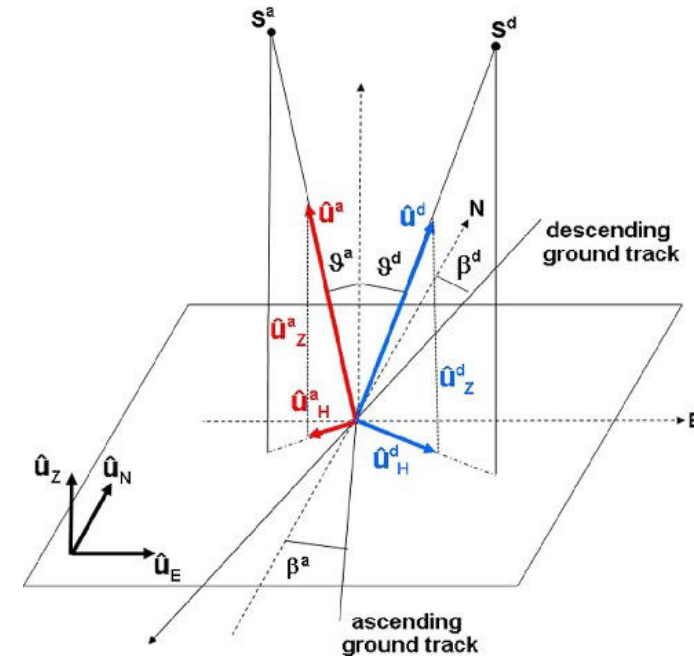
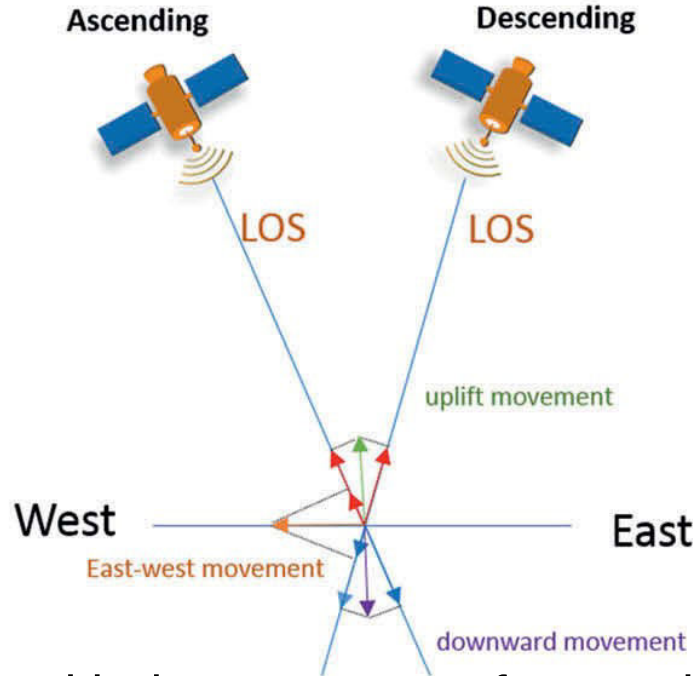


Sentinel-1 descending (track 10)



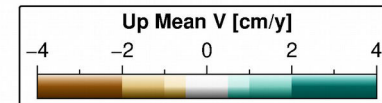
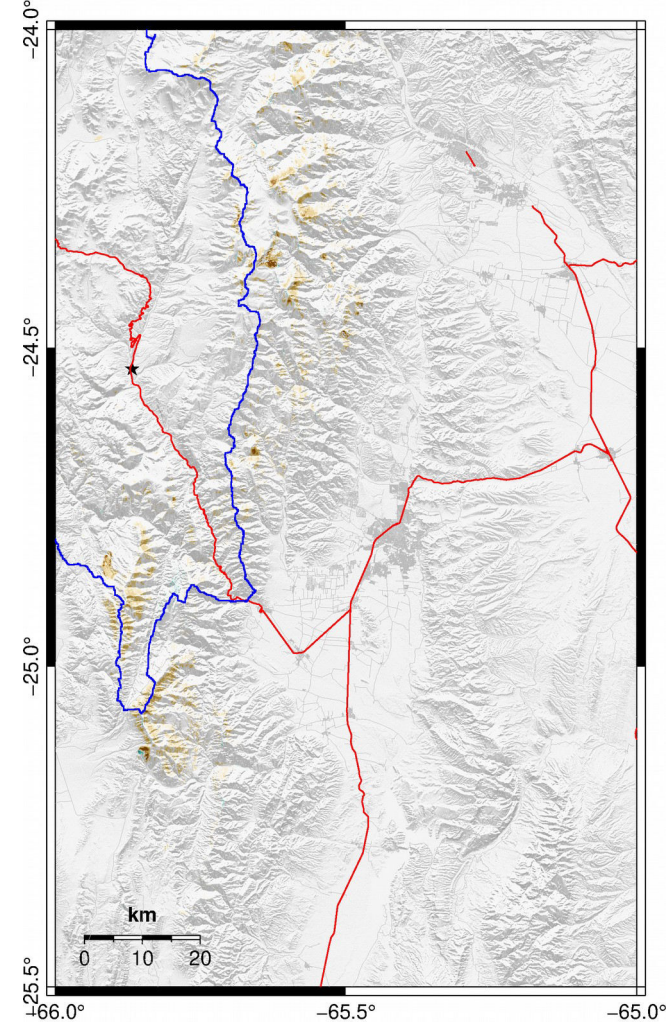
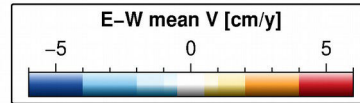
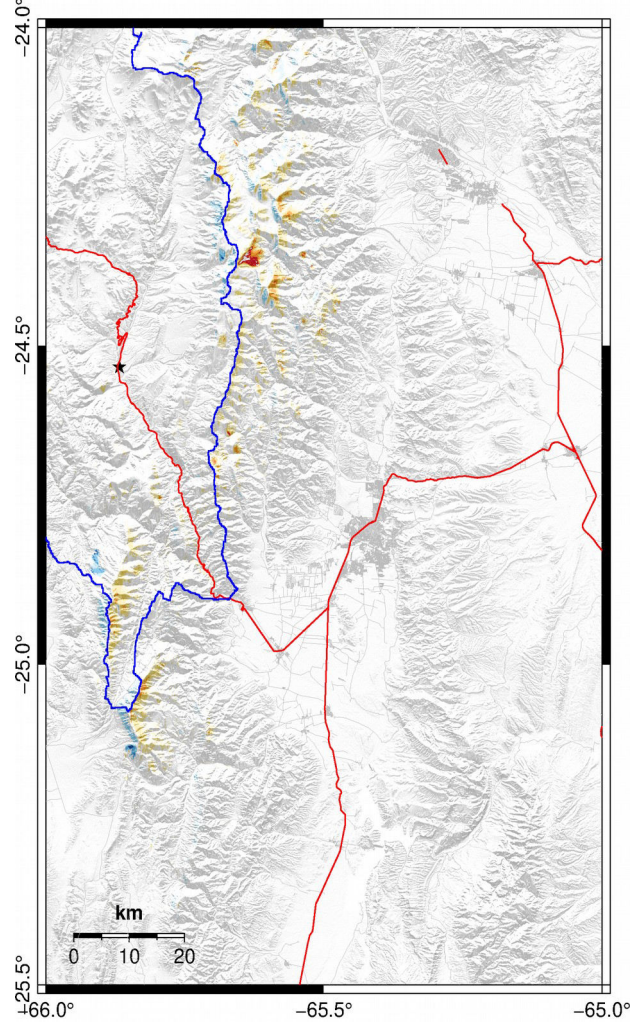
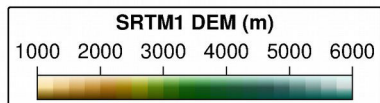
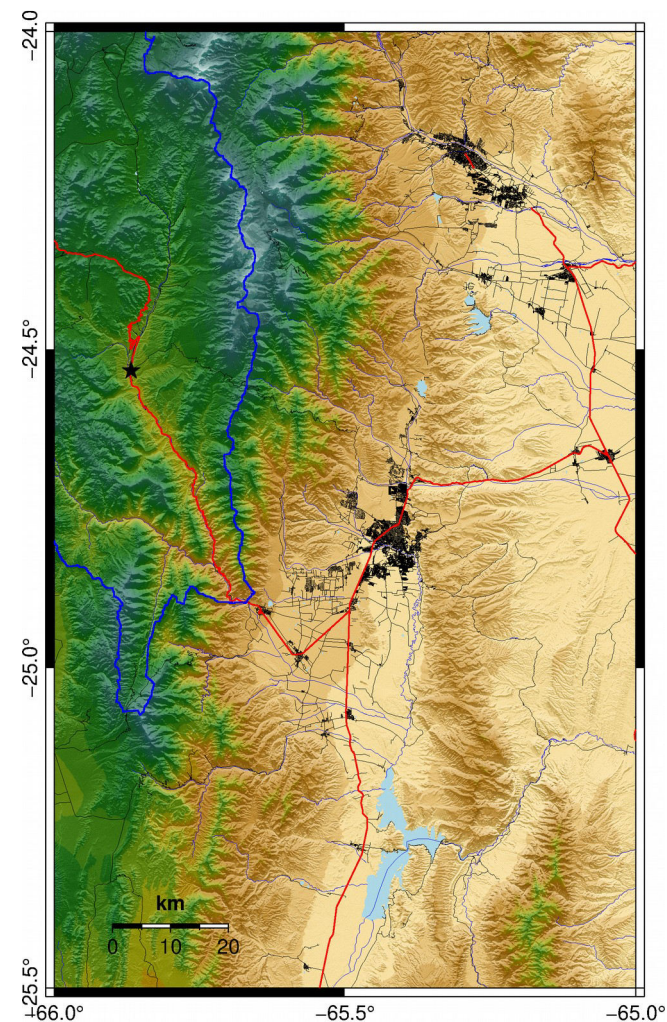
Sentinel-1 3D deformation field

b)

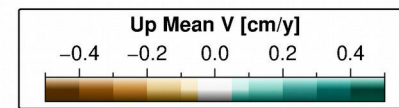
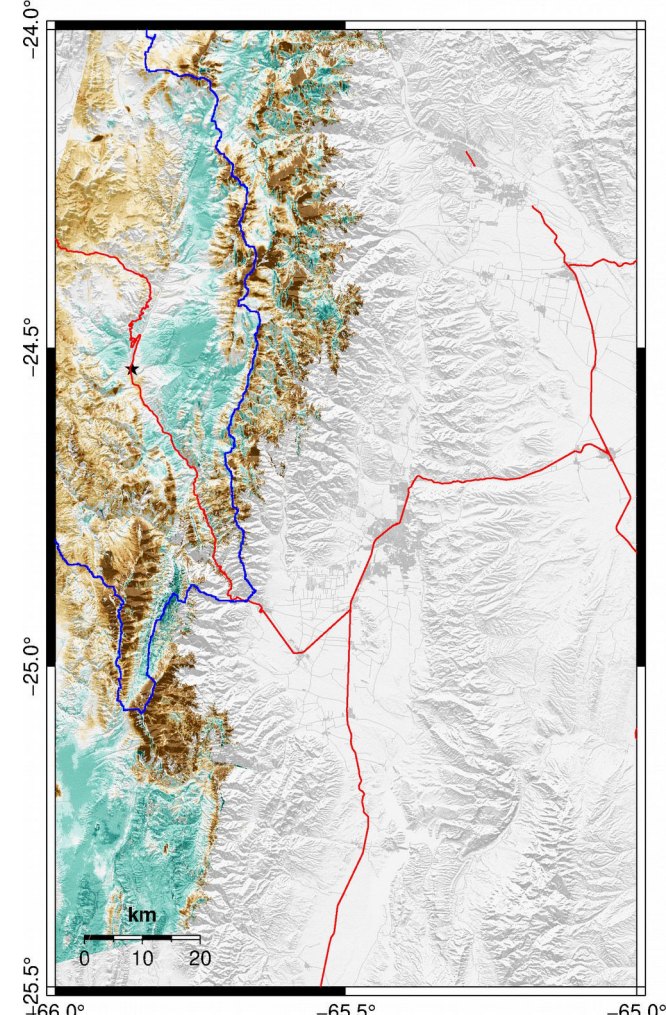
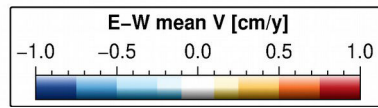
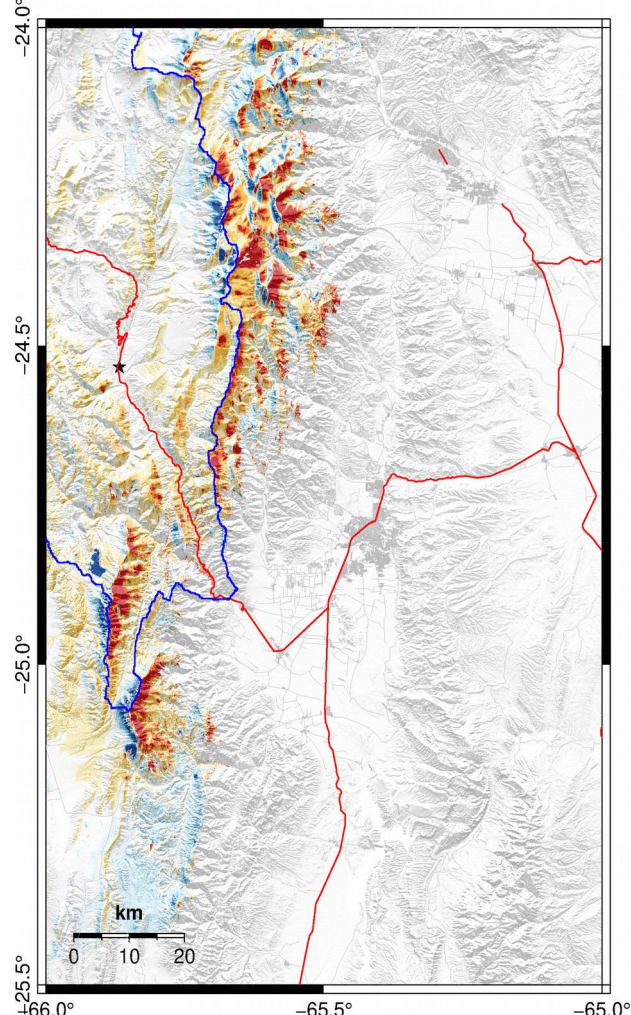
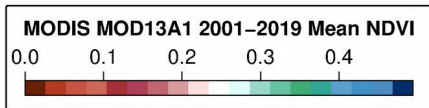
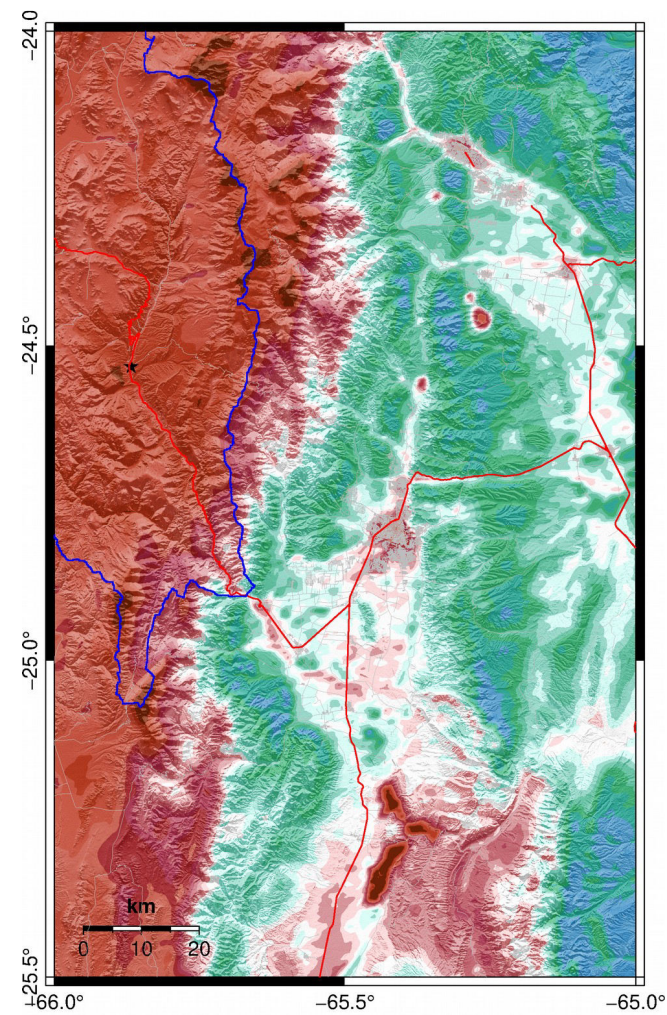


Sketch with the geometry of ascending and descending InSAR geometries with unit vectors (red) \hat{u}^a and (blue) \hat{u}^d , radar incidence angles ϑ^a and ϑ^d , and angles β^a and β^d related to ground-track azimuthal angles. The horizontal components of unit vectors \hat{u}^a and \hat{u}^d are also depicted (after Catalao et al., 2011 and Vassileva et al., 2017)

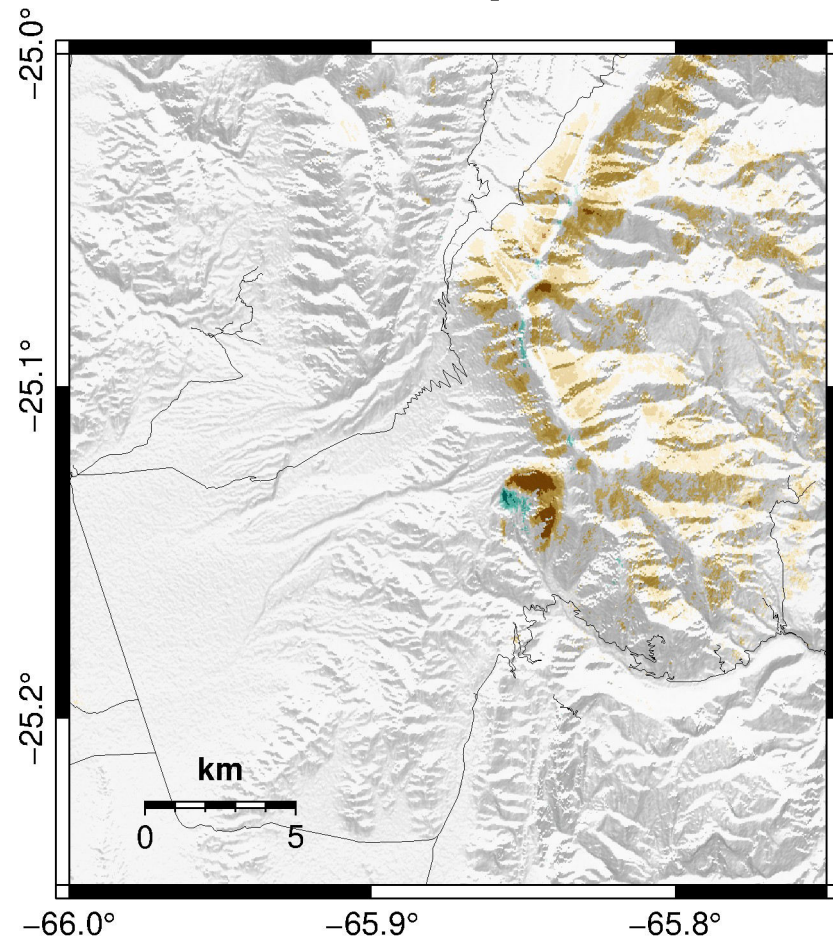
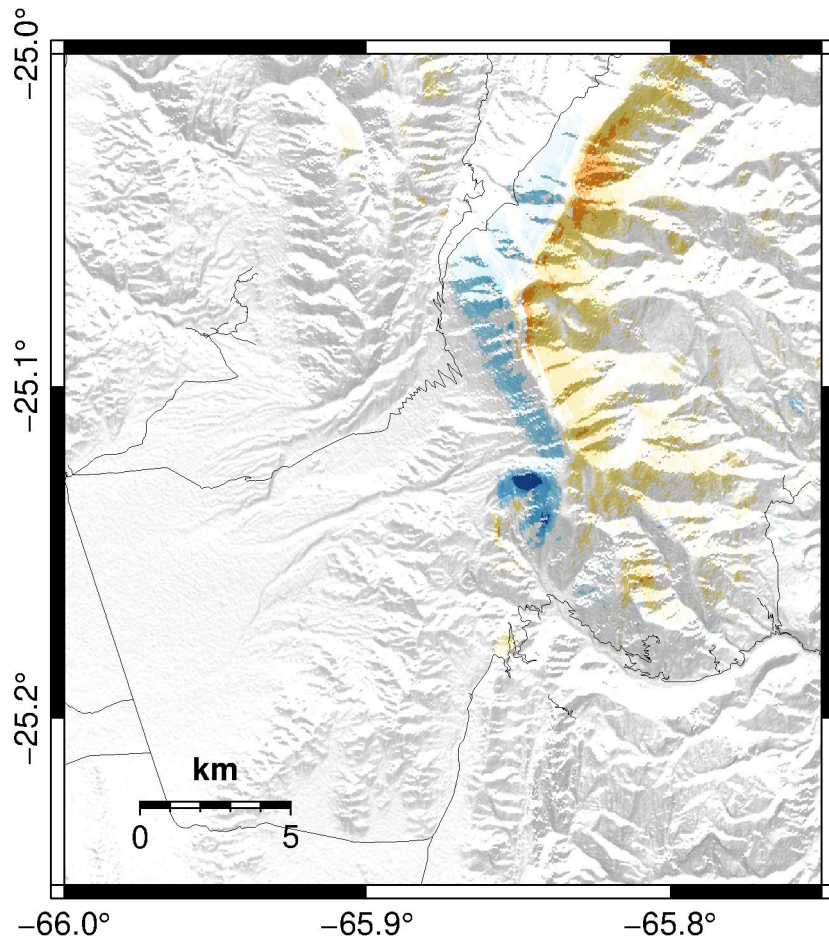
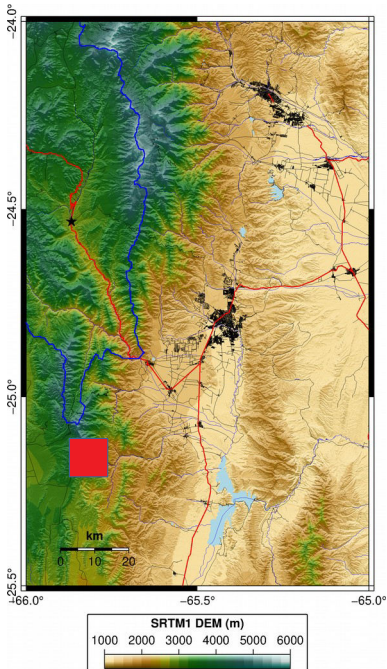
Sentinel-1 3D deformation field



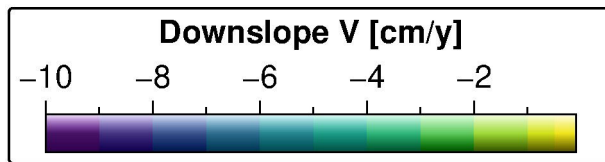
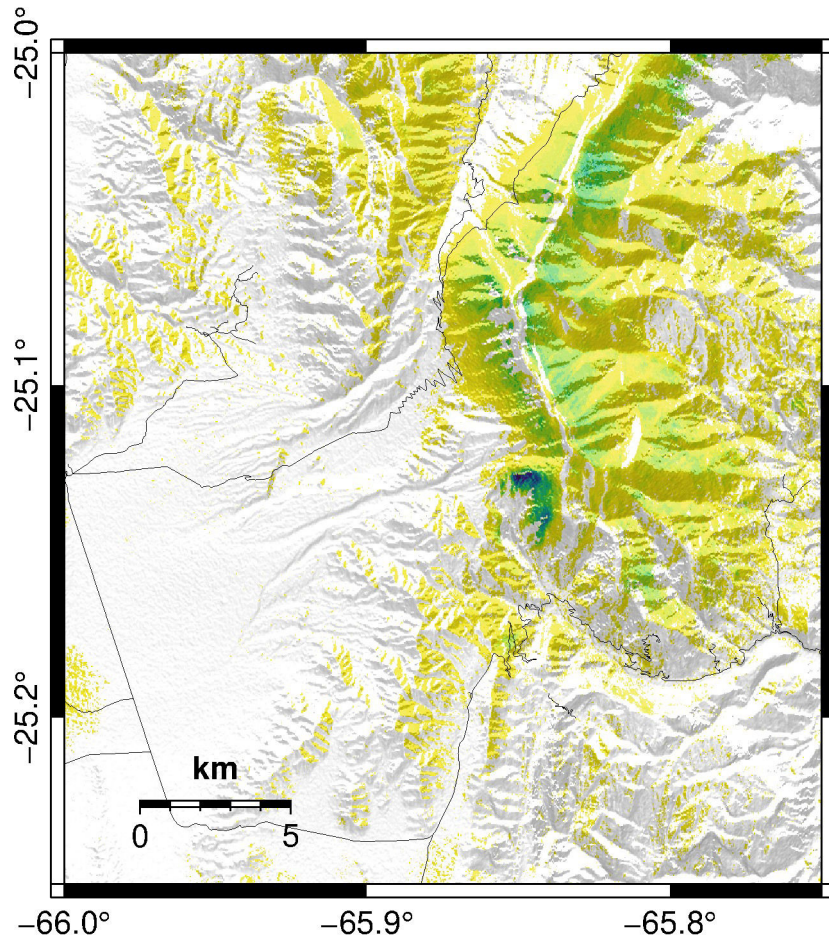
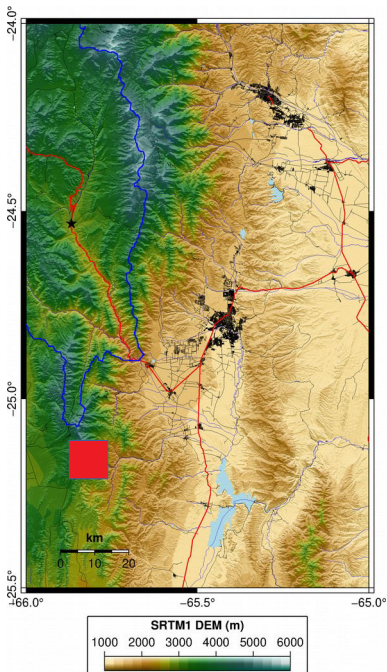
Sentinel-1 3D deformation field



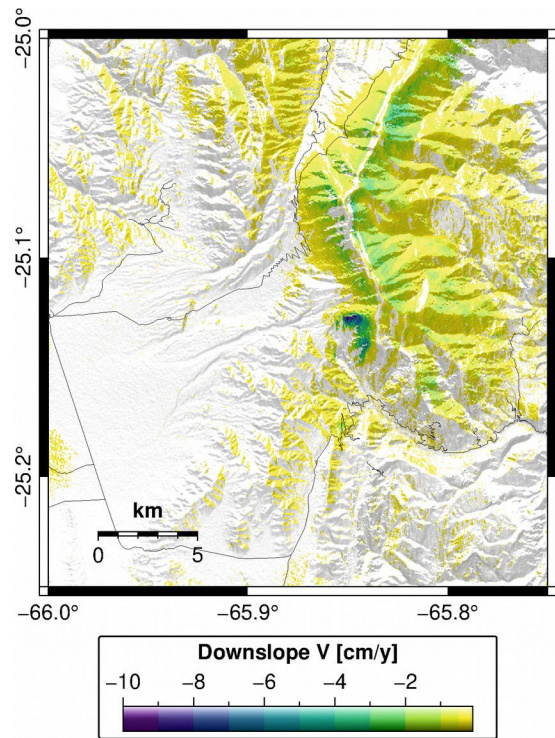
Sentinel-1 3D deformation field – Quebrada de Escoipe



Sentinel-1 3D deformation field – Quebrada de Escoipe



Sentinel-1 3D deformation field – Quebrada de Escoipe



Sentinel-1 3D deformation field from Persistent Scatterer

