



CSSI Element: Harnessing the InSAR Data Revolution: GMTSAR

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Award #: 1834807

- GMTSAR is an open-source system for measuring land surface deformation from repeated synthetic aperture radar images.
- Funding:
 - 3 years of funding from NSF - CSSI
 - improve code distribution
 - improve geodetic accuracy
 - harden code
 - education
- Software distribution:
 - github; homebrew; macports
 - (52k lines of C-code & 14k lines of shell scripts)
- UNAVCO short courses:
- Big data from Sentinel-1 (ESA)
 - total data volume 114 PB
 - daily download volume of 166 TB

Sentinel-1 radar interferogram of surface deformation from 2019, M7.1 Ridgecrest Earthquake, One color cycle is 28 mm. The rupture length is ~50 km.

