SUPPORTING INFORMATION FOR

Performance of Common Scene Stacking Atmospheric Correction on nonlinear InSAR Deformation Retrieval

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Introduction

This supplementary file contains 3 figures that are result in the main document. Figures S1 and S2 show the simulated interferograms with 20mm of random noise added that include linear deformation and coseismic deformation, respectively. Figure S3 is the τ value result from inversion.
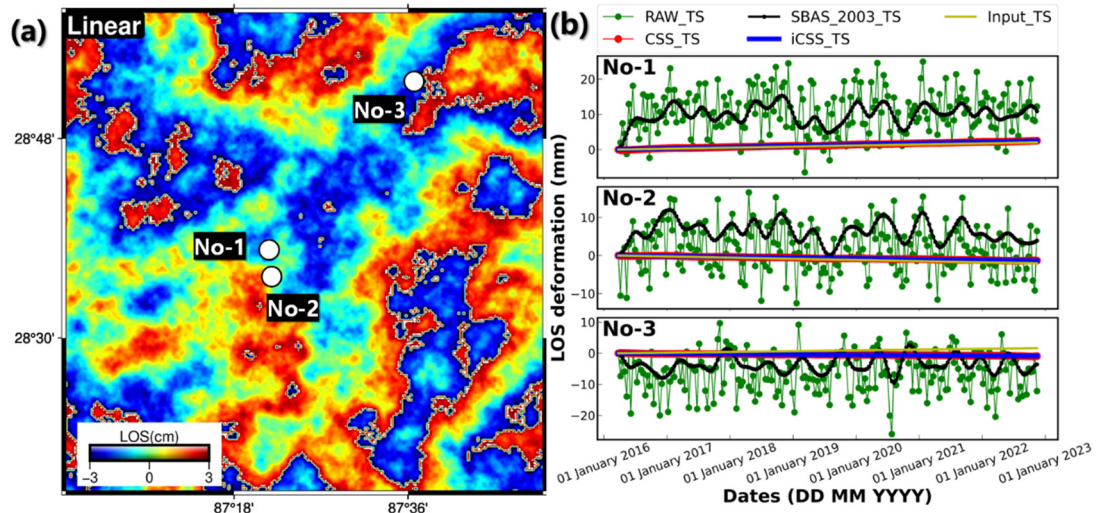
Figure S1. (a) An accumulated simulated interferogram of 9 February 2020-6 March 2022 with 20 mm of random noise added that includes linear deformation, where dots (white) are reference stations for time series analysis. (b) give deformation sequences obtained from inversion at the three reference stations, respectively. The diagrams show simulated theoretical deformation sequence (yellow lines), input deformation sequence (green lines), deformation sequence after traditional CSS (red lines), deformation sequence after ICSS (blue lines), and deformation sequence after SBAS2003 (black lines).
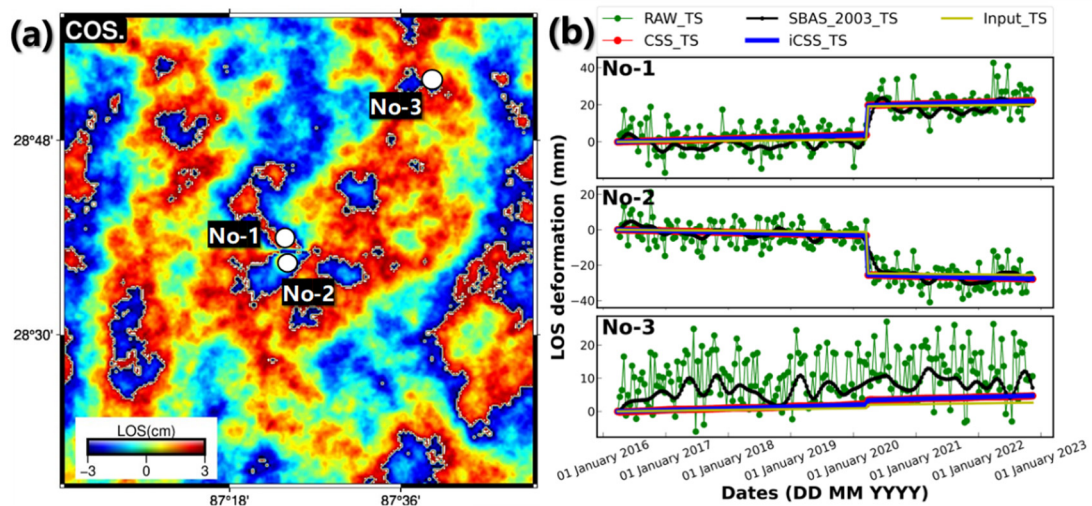

Figure S2. An accumulated simulated interferogram of 9 February 2020-9 March 2022 with 20 mm of random noise added that includes coseismic deformation, the symbols are same as those in Figure S1.
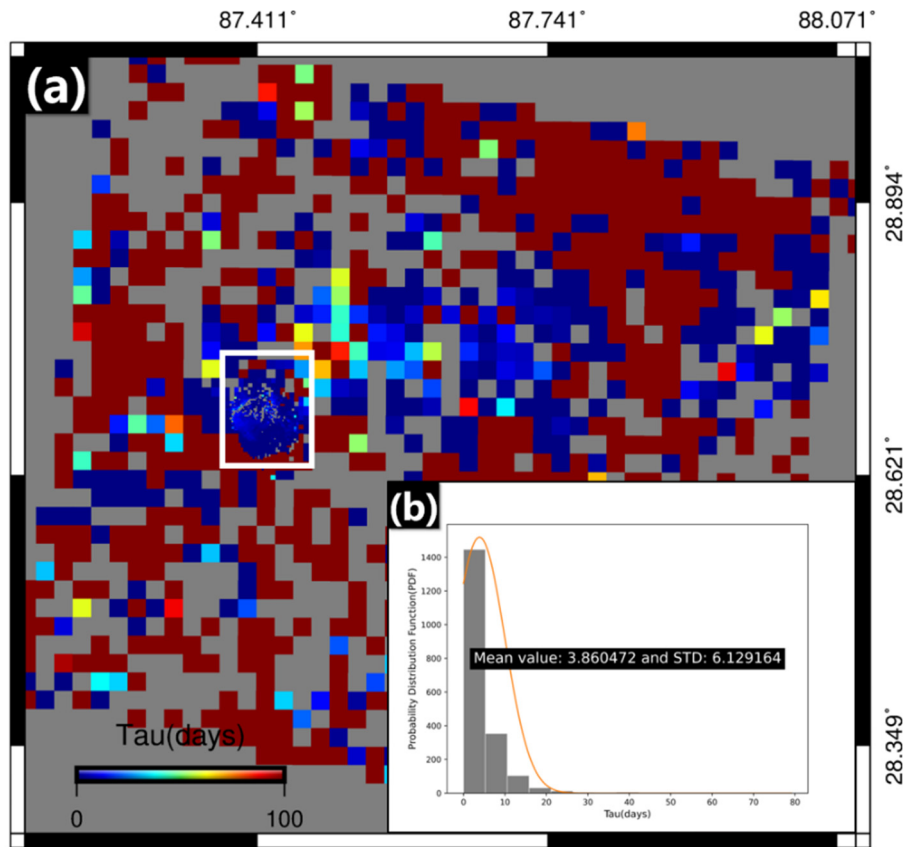
Figure S3. (a) The τ value result from inversion. (b) Histogram of selected points within deformation region (white box) with τ values less than 100.