

Fujiwara S, Nakano T, Morishita Y (2020)

**Detection of Triggered Shallow Slips
Caused by Large Earthquakes
using L-band SAR Interferometry**

Earth, Planets and Space.

**Additional file
Figs. S1 – S5**

Fig. S1

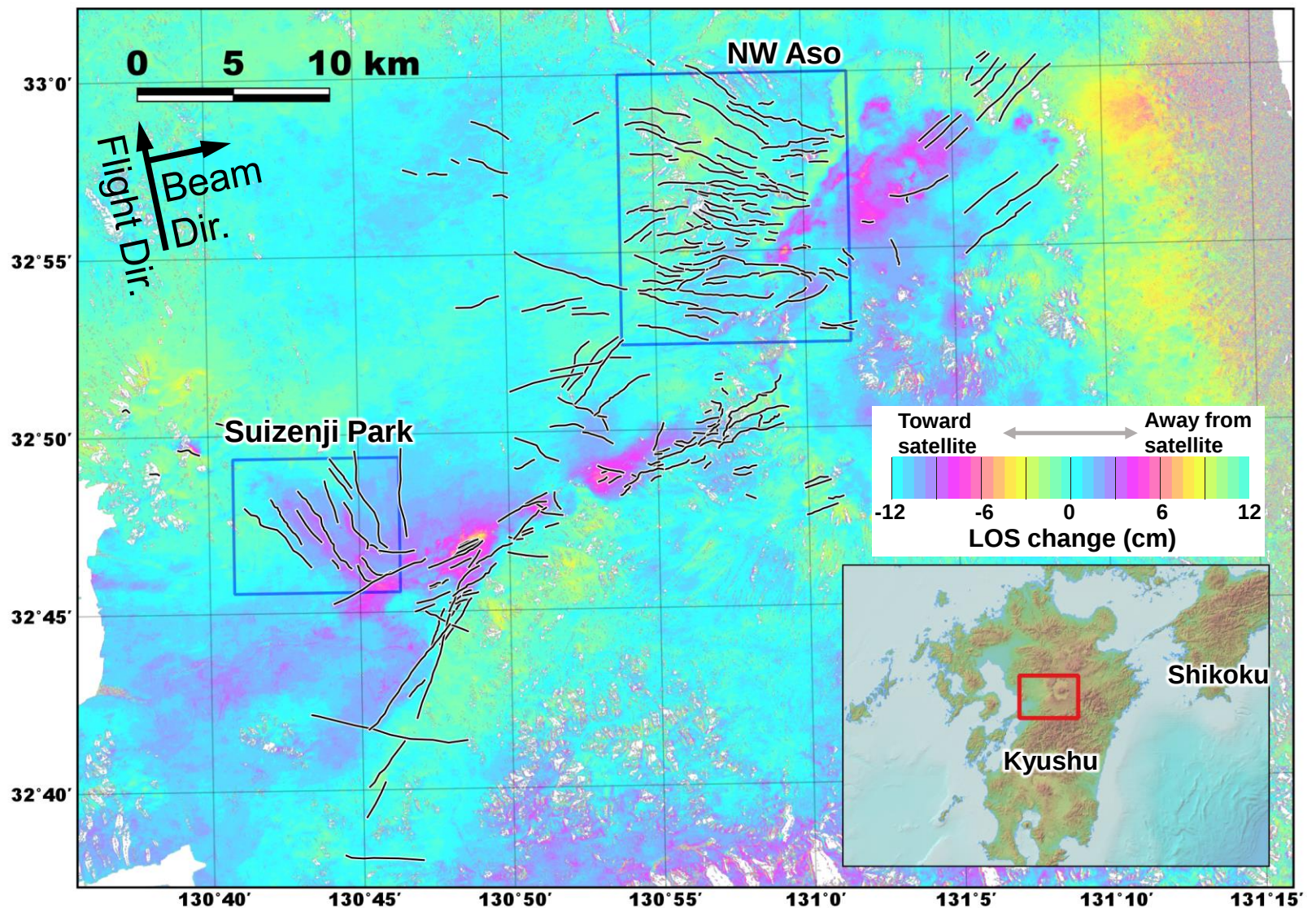


Fig. S1 Interferogram of ALOS-2 indicating the post-seismic deformation that occurred between April 17 and May 1, 2016. Small lines show the displacement lineaments identified by Fujiwara et al. (2016) and modified in this study using ALOS-2 interferograms.

Fig. S2

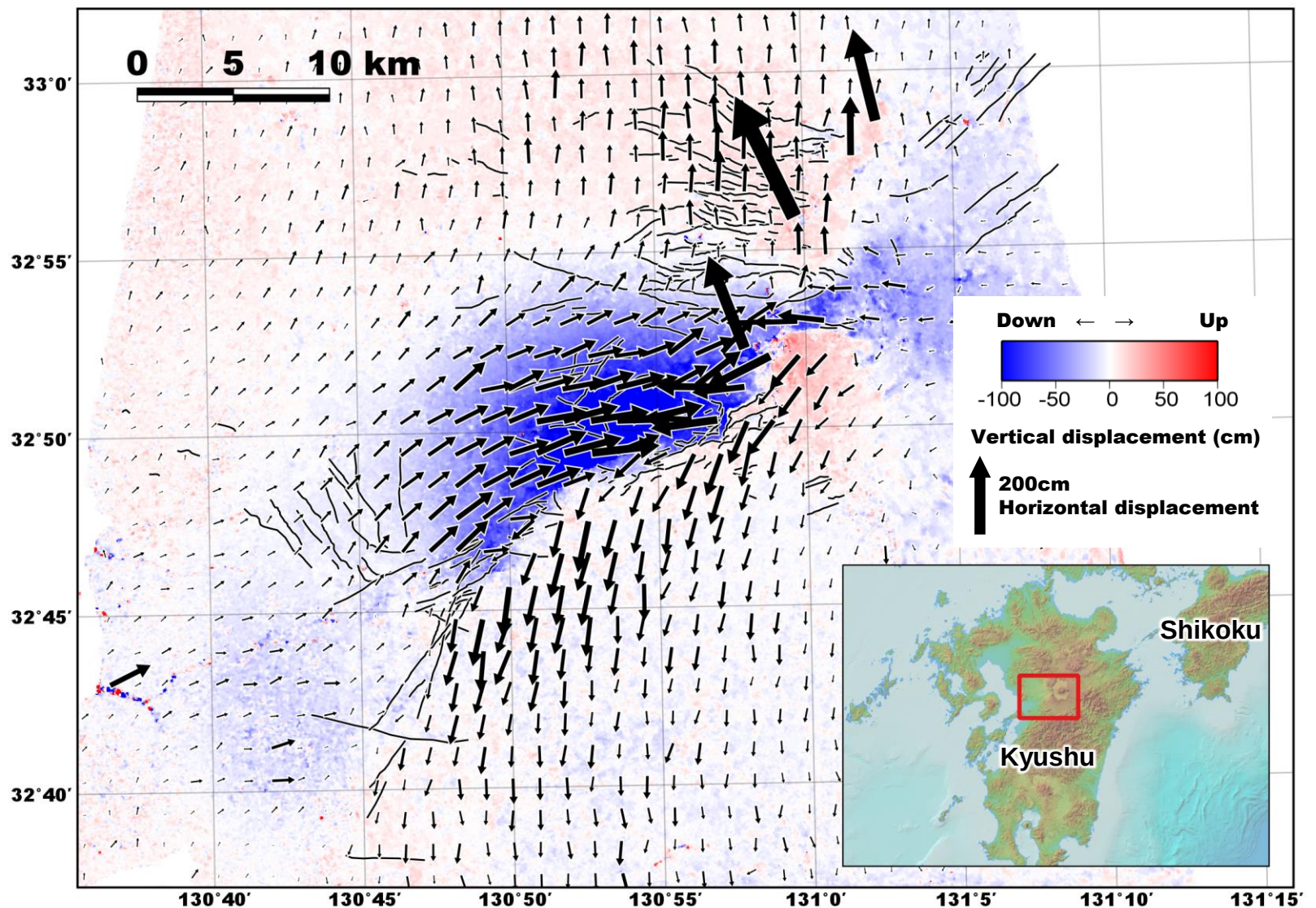


Fig. S2 3D deformation map of the Kumamoto earthquake sequence using ALOS-2 InSAR. The blue-to-red map shows the vertical displacement with arrows indicating horizontal displacement. Black lines indicate the displacement lineaments identified by Fujiwara et al. (2016) and modified in this study.

Fig. S3

Δ CFF receiver fault for Suizenji Park
strike 150° , dip 90° , rake 270° , depth (a) 0km / (b) 2km

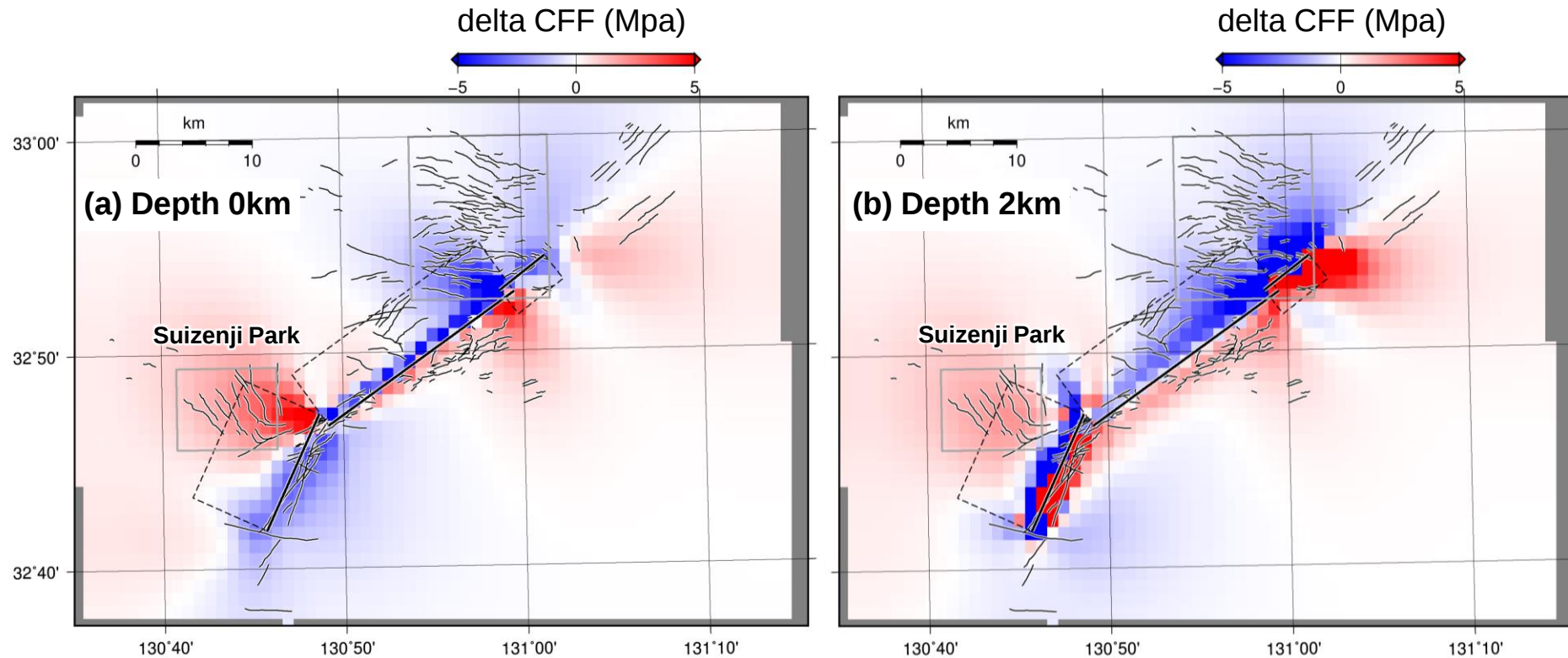


Fig. S3 Static Coulomb stress changes resolved on the displacement lineament mechanism. The colors indicate the amount of calculated delta CFF on typical displacement lineaments around Suizenji Park (strike 150° , dip 90° , rake 270° , (a) depth 0 km, (b) depth 2 km). The seismogenic fault model of the Kumamoto earthquake sequence was adapted from Kobayashi et al. (2018b).

Fig. S4

Δ CFF receiver fault for NW-Aso
strike 100° , dip 90° , rake 270° , depth (a) 0km / (b) 2km

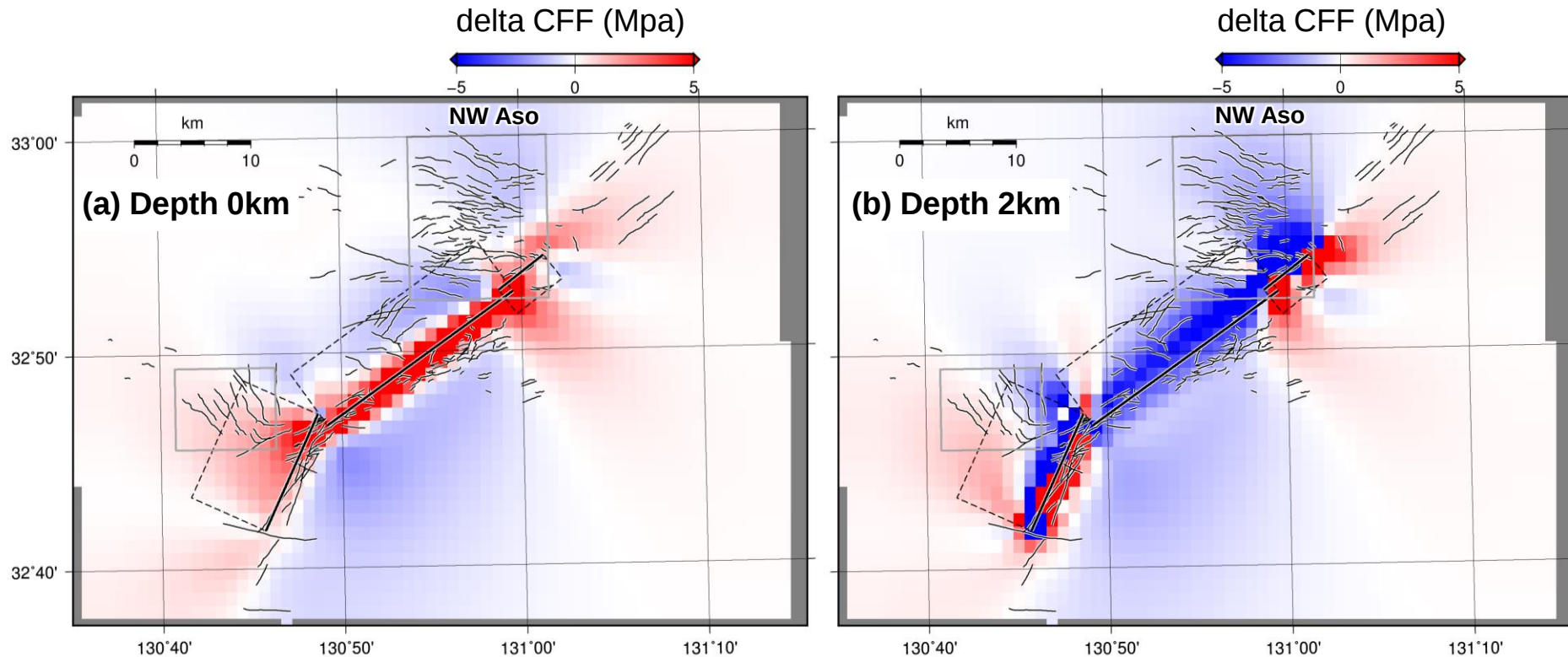


Fig. S4 Static Coulomb stress changes resolved on the displacement lineament mechanism. The colors indicate the amount of calculated delta CFF on typical displacement lineaments around the northwest of the outer rim of Aso caldera (strike 100° , dip 90° , rake 270° , (a) depth 0 km, (b) depth 2 km). The seismogenic fault model of the Kumamoto earthquake sequence was adapted from Kobayashi et al. (2018b).

Fig. S5

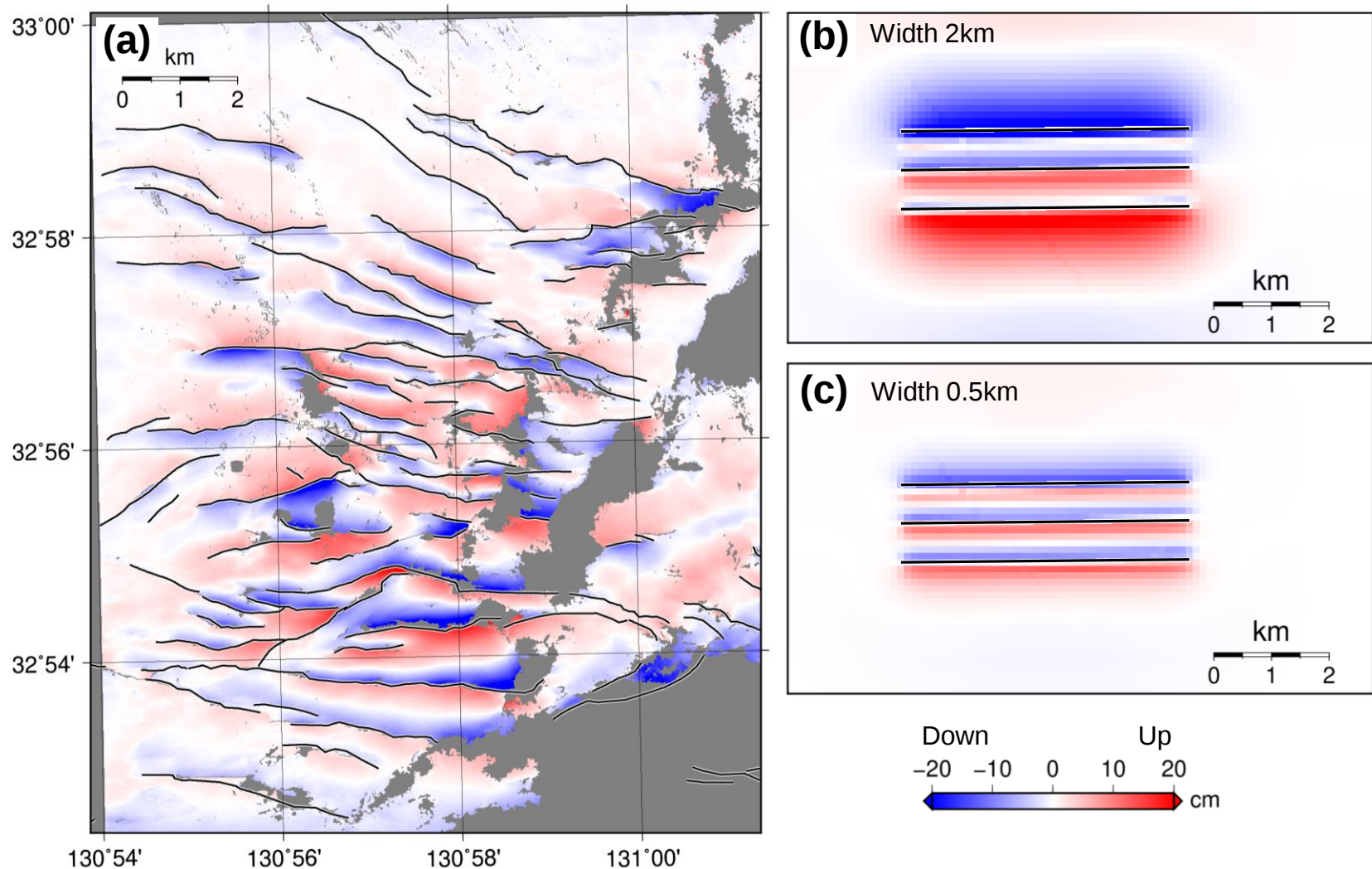


Fig. S5 Comparison between up-down displacement and model simulations of displacement lineaments.

- (a) High-pass-filtered up-down displacement map created using 3D InSAR of ALOS-2 (Fujiwara et al. 2016). Red and blue areas represent up and down directions, respectively; black lines indicate identified displacement lineaments.
- (b) Model simulation of three parallel displacement lineaments (black lines) for a 2-km width (length 5 km, horizontal spacing of each displacement 670 m, strike 100° , dip 90° , rake 270° , slip 50 cm) using the same high-pass filter as in (a).
- (c) Model simulation for a 0.5-km width, similar to (b).