Reference velocity model, modified from (Monsalve et al., 2008)

Near Source structure

Layers	*Vp (km/sec)*	*Vs (km/sec)*	*Density (km/sec)*	*Thickness (km)*
Sediment	0.5	0.25	2.29	0.2 (Only for NAST)
Layer 1	5.5	3.2	2.11	4.0
Layer 2	5.7	3.2	2.72	20
Layer 3	6.30	3.7	2.79	22.0
Layer 4	8.21	4.55	3.38	999

Near site structure

Layer 1	6.0	3.46	2.6	15.
Layer 2	6.7	3.90	2.7	15.
Layer 3	7.7	4.50	3.3	999.

T* for P waves 1.0 s
T* for S waves 4.0 s

Notice: The sediment layer is only used to model hr-GPS Green's functions for the NAST station. The other Green's functions didn't use the sediment layer on top.

Captions of supplementary figures

Figure S1. Observed and predicted 3 component ground displacement waveforms recorded at 6 hr-GPS stations are plotted in each row and column, respectively. Synthetic and observed waveforms are band-pass filtered with a corner frequency of 0.02 and 0.1 Hz, which is identical as the filter adopted in both inversions. Observed waveforms are plotted in black. Waveforms predicted by MTW and Bayesian inversion approaches are plotted in red and blue, respectively. Bayesian inversion predictions are estimated from the mean value of synthetics of 30 randomly selected posterior models, which are plotted in grey curves.

Figure S2. Observed and predicted teleseismic P and SH wave records are plotted. Observed waveforms are plotted in black. Waveforms predicted by MTW inversion and Bayesian inversion approaches are plotted in blue dashed curve and red solid curves, respectively. Bayesian inversion predictions are estimated from the mean waveform of 30 randomly selected posterior models, which are plotted in grey curves. Epicentral distances and azimuth are indicated for each station.

Figure S3. Observed ground displacement, estimated ramps and residual displacements of InSAR interferograms and azimuth-offsets from both MTW and Bayesian inversion results are plotted for each image, respectively. Satellite names are indicated. Contour lines for 2m and 4m co-seismic slips are plotted as black contours in each image. Heading and Line of Sight (LOS) directions are indicated as long and short arrows for each interferograms. Azimuth directions are indicated for Azimuth-offset images. Distributions of residuals are plotted in blue filled histograms for each image in Figure S3c and S3d.

Figure S4. We use synthetic tests to evaluate the influence of depth varying resolution to the model roughness distribution. Input model is parameterized with a checker-board slip pattern, which presents uniform spatial roughness. Synthetics are generated with the same data coverage for the InSAR and static GPS datasets as that used in the Gorkha earthquake inversions. Bayesian inversion is performed using the static displacement synthetics. **(a)** Co-seismic slip pattern of the static Bayesian inversion is plotted in a red-blue color scale. Co-seismic slip vectors in each subfault are presented by black arrows. The slip uncertainties at 50% confidence level, estimated from posterior sampling, are indicated by grey filled ellipses. **(b)** Mean slip roughness is calculated by averaging roughness for rake parallel slip over each posterior model, and mapped for each subfault with a blue-red color scale. **(c)** Joint PDF of up-dip slip roughness $\overline{R_s^u}$ versus down-dip slip roughness $\overline{R_s^d}$ is plotted in a blue-red color scale. Most of $\overline{R_s^u}$ and $\overline{R_s^d}$ samples are distributed around $\overline{R_s^d}/\overline{R_s^u} = 1$, which is marked with a white dashed line. Marginal PDFs of $\overline{R_s^u}$ and $\overline{R_s^d}$ are plotted along x and y axis, respectively. The slip uncertainty achieved in the synthetic test is similar to that of Gorkha earthquake, while in the synthetic test we didn't resolve a significant roughness increase to the down-dip portion. This indicates the depth dependent roughness observed in the Gorkha earthquake is not an inversion artifact. **(d)** PDFs of $\overline{R_s^d}/\overline{R_s^u}$ are plotted in a red shape. Probability function presenting $\overline{R_s^d}/\overline{R_s^u}$>x are plotted in a green filled shape.

Multi-Time-Window Inversion results

Nepal_Main event 2015/ 4/25 Mag:7.86 FFM inverted from hr-GPS/teleseismic/static-GPS/InSAR/
GF built reference to local 1-D model
Initial time at 6:11:26
Hypocenter at 28.15 N, 84.71 E, 10 km
Node locate at the center of each subfault

< Subevent sequence >

time	time-dur	lat	lon	depth	strike	dip	rake	Mo(Nm)	slip(m)	x	y	xinc	yinc	segnum	subnum	parnum
44.743	16.00	27.403	85.895	6.864	293.000	6.000	145.905	9.089e+17	0.326	-140.000	30.000	10.00	10.00	1	1	1
44.194	16.00	27.485	85.936	7.909	293.000	6.000	0.000	0.000e+00	0.000	-140.000	20.000	10.00	10.00	1	2	17
43.861	16.00	27.567	85.976	8.955	293.000	6.000	121.790	2.152e+18	0.773	-140.000	10.000	10.00	10.00	1	3	33
43.750	16.00	27.649	86.016	10.000	293.000	6.000	89.097	5.871e+18	2.108	-140.000	0.000	10.00	10.00	1	4	49
43.861	16.00	27.731	86.057	11.045	293.000	6.000	111.798	2.037e+18	0.731	-140.000	-10.000	10.00	10.00	1	5	65
44.194	16.00	27.813	86.097	12.091	293.000	6.000	95.271	1.649e+18	0.592	-140.000	-20.000	10.00	10.00	1	6	81
44.743	16.00	27.895	86.138	13.136	293.000	6.000	66.663	1.111e+18	0.399	-140.000	-30.000	10.00	10.00	1	7	97
45.501	16.00	27.977	86.179	14.181	293.000	6.000	91.095	2.634e+18	0.946	-140.000	-40.000	10.00	10.00	1	8	113
46.456	16.00	28.058	86.219	15.226	293.000	6.000	101.465	1.772e+18	0.636	-140.000	-50.000	10.00	10.00	1	9	129
41.693	16.00	27.439	85.802	6.864	293.000	6.000	152.000	2.227e+17	0.080	-130.000	30.000	10.00	10.00	1	10	145
41.103	16.00	27.521	85.843	7.909	293.000	6.000	152.000	9.357e+16	0.034	-130.000	20.000	10.00	10.00	1	11	161
40.745	16.00	27.603	85.883	8.955	293.000	6.000	103.137	2.902e+18	1.042	-130.000	10.000	10.00	10.00	1	12	177
40.625	16.00	27.685	85.923	10.000	293.000	6.000	91.048	7.834e+18	2.813	-130.000	0.000	10.00	10.00	1	13	193
40.745	16.00	27.767	85.964	11.045	293.000	6.000	121.833	2.696e+18	0.968	-130.000	-10.000	10.00	10.00	1	14	209
41.103	16.00	27.849	86.004	12.091	293.000	6.000	62.000	1.295e+18	0.465	-130.000	-20.000	10.00	10.00	1	15	225
41.693	16.00	27.931	86.045	13.136	293.000	6.000	62.000	8.804e+17	0.316	-130.000	-30.000	10.00	10.00	1	16	241
42.505	16.00	28.013	86.085	14.181	293.000	6.000	62.000	1.074e+18	0.386	-130.000	-40.000	10.00	10.00	1	17	257
43.526	16.00	28.095	86.126	15.226	293.000	6.000	125.281	1.657e+18	0.595	-130.000	-50.000	10.00	10.00	1	18	273
38.654	16.00	27.475	85.710	6.864	293.000	6.000	152.000	1.560e+17	0.056	-120.000	30.000	10.00	10.00	1	19	289
38.017	16.00	27.557	85.750	7.909	293.000	6.000	62.000	4.024e+17	0.144	-120.000	20.000	10.00	10.00	1	20	305
37.630	16.00	27.639	85.790	8.955	293.000	6.000	102.128	5.528e+18	1.985	-120.000	10.000	10.00	10.00	1	21	321

37.500	16.00	27.721	85.830	10.000	293.000	6.000	94.488	9.692e+18	3.480	-120.000	0.000	10.00	10.00	1	22	337
37.630	16.00	27.803	85.871	11.045	293.000	6.000	133.206	2.416e+18	0.867	-120.000	-10.000	10.00	10.00	1	23	353
38.017	16.00	27.885	85.911	12.091	293.000	6.000	62.000	9.070e+17	0.326	-120.000	-20.000	10.00	10.00	1	24	369
38.654	16.00	27.967	85.952	13.136	293.000	6.000	62.000	3.166e+18	1.137	-120.000	-30.000	10.00	10.00	1	25	385
39.528	16.00	28.049	85.992	14.181	293.000	6.000	62.000	2.101e+17	0.075	-120.000	-40.000	10.00	10.00	1	26	401
40.625	16.00	28.131	86.033	15.226	293.000	6.000	133.147	2.944e+18	1.057	-120.000	-50.000	10.00	10.00	1	27	417
35.630	16.00	27.510	85.617	6.864	293.000	6.000	134.441	1.659e+17	0.060	-110.000	30.000	10.00	10.00	1	28	433
34.939	16.00	27.593	85.657	7.909	293.000	6.000	75.652	8.639e+17	0.310	-110.000	20.000	10.00	10.00	1	29	449
34.517	16.00	27.675	85.697	8.955	293.000	6.000	97.928	5.970e+18	2.143	-110.000	10.000	10.00	10.00	1	30	465
34.375	16.00	27.757	85.737	10.000	293.000	6.000	97.224	1.047e+19	3.760	-110.000	0.000	10.00	10.00	1	31	481
34.517	16.00	27.839	85.777	11.045	293.000	6.000	114.047	4.402e+18	1.580	-110.000	-10.000	10.00	10.00	1	32	497
34.939	16.00	27.921	85.818	12.091	293.000	6.000	104.046	5.926e+18	2.127	-110.000	-20.000	10.00	10.00	1	33	513
35.630	16.00	28.003	85.858	13.136	293.000	6.000	73.110	4.985e+18	1.790	-110.000	-30.000	10.00	10.00	1	34	529
36.577	16.00	28.085	85.899	14.181	293.000	6.000	99.512	2.329e+18	0.836	-110.000	-40.000	10.00	10.00	1	35	545
37.760	16.00	28.167	85.939	15.226	293.000	6.000	152.000	7.520e+17	0.270	-110.000	-50.000	10.00	10.00	1	36	561
32.626	16.00	27.546	85.523	6.864	293.000	6.000	149.360	4.930e+17	0.177	-100.000	30.000	10.00	10.00	1	37	577
31.869	16.00	27.628	85.564	7.909	293.000	6.000	65.376	1.316e+18	0.472	-100.000	20.000	10.00	10.00	1	38	593
31.406	16.00	27.710	85.604	8.955	293.000	6.000	93.418	7.157e+18	2.570	-100.000	10.000	10.00	10.00	1	39	609
31.250	16.00	27.792	85.644	10.000	293.000	6.000	91.218	1.409e+19	5.057	-100.000	0.000	10.00	10.00	1	40	625
31.406	16.00	27.874	85.684	11.045	293.000	6.000	122.561	1.447e+19	5.197	-100.000	-10.000	10.00	10.00	1	41	641
31.869	16.00	27.957	85.724	12.091	293.000	6.000	117.515	8.391e+18	3.013	-100.000	-20.000	10.00	10.00	1	42	657
32.626	16.00	28.039	85.765	13.136	293.000	6.000	112.799	1.008e+19	3.617	-100.000	-30.000	10.00	10.00	1	43	673
33.657	16.00	28.121	85.805	14.181	293.000	6.000	62.000	2.502e+17	0.090	-100.000	-40.000	10.00	10.00	1	44	689
34.939	16.00	28.203	85.846	15.226	293.000	6.000	97.697	9.806e+17	0.352	-100.000	-50.000	10.00	10.00	1	45	705
29.646	16.00	27.582	85.430	6.864	293.000	6.000	125.557	8.228e+17	0.295	-90.000	30.000	10.00	10.00	1	46	721
28.811	16.00	27.664	85.470	7.909	293.000	6.000	74.414	2.748e+18	0.987	-90.000	20.000	10.00	10.00	1	47	737
28.298	16.00	27.746	85.510	8.955	293.000	6.000	87.732	9.740e+18	3.497	-90.000	10.000	10.00	10.00	1	48	753
28.125	16.00	27.828	85.551	10.000	293.000	6.000	102.254	1.558e+19	5.595	-90.000	0.000	10.00	10.00	1	49	769
28.298	16.00	27.910	85.591	11.045	293.000	6.000	107.704	1.245e+19	4.469	-90.000	-10.000	10.00	10.00	1	50	785
28.811	16.00	27.992	85.631	12.091	293.000	6.000	106.936	8.643e+18	3.103	-90.000	-20.000	10.00	10.00	1	51	801
29.646	16.00	28.074	85.671	13.136	293.000	6.000	104.715	9.682e+18	3.476	-90.000	-30.000	10.00	10.00	1	52	817
30.778	16.00	28.156	85.712	14.181	293.000	6.000	131.443	5.779e+18	2.075	-90.000	-40.000	10.00	10.00	1	53	833
32.174	16.00	28.238	85.752	15.226	293.000	6.000	88.446	2.907e+18	1.044	-90.000	-50.000	10.00	10.00	1	54	849
26.700	16.00	27.617	85.337	6.864	293.000	6.000	112.944	1.252e+18	0.449	-80.000	30.000	10.00	10.00	1	55	865

25.769	16.00	27.700	85.377	7.909	293.000	6.000	79.499	3.930e+18	1.411	-80.000	20.000	10.00	10.00	1	56	881
25.195	16.00	27.782	85.417	8.955	293.000	6.000	91.571	1.145e+19	4.110	-80.000	10.000	10.00	10.00	1	57	897
25.000	16.00	27.864	85.457	10.000	293.000	6.000	106.227	1.688e+19	6.062	-80.000	0.000	10.00	10.00	1	58	913
25.195	16.00	27.946	85.497	11.045	293.000	6.000	100.110	1.092e+19	3.921	-80.000	-10.000	10.00	10.00	1	59	929
25.769	16.00	28.028	85.537	12.091	293.000	6.000	121.522	7.219e+18	2.592	-80.000	-20.000	10.00	10.00	1	60	945
26.700	16.00	28.110	85.578	13.136	293.000	6.000	107.313	3.415e+18	1.226	-80.000	-30.000	10.00	10.00	1	61	961
27.951	16.00	28.192	85.618	14.181	293.000	6.000	118.755	1.691e+18	0.607	-80.000	-40.000	10.00	10.00	1	62	977
29.481	16.00	28.274	85.658	15.226	293.000	6.000	118.711	1.438e+18	0.516	-80.000	-50.000	10.00	10.00	1	63	993
23.799	16.00	27.653	85.244	6.864	293.000	6.000	109.291	1.133e+18	0.407	-70.000	30.000	10.00	10.00	1	64	1009
22.750	16.00	27.735	85.284	7.909	293.000	6.000	105.301	3.754e+18	1.348	-70.000	20.000	10.00	10.00	1	65	1025
22.097	16.00	27.817	85.324	8.955	293.000	6.000	96.549	1.182e+19	4.244	-70.000	10.000	10.00	10.00	1	66	1041
21.875	16.00	27.899	85.364	10.000	293.000	6.000	103.605	1.550e+19	5.564	-70.000	0.000	10.00	10.00	1	67	1057
22.097	16.00	27.982	85.404	11.045	293.000	6.000	103.954	1.435e+19	5.152	-70.000	-10.000	10.00	10.00	1	68	1073
22.750	16.00	28.064	85.444	12.091	293.000	6.000	122.304	7.208e+18	2.588	-70.000	-20.000	10.00	10.00	1	69	1089
23.799	16.00	28.146	85.484	13.136	293.000	6.000	89.219	2.560e+18	0.919	-70.000	-30.000	10.00	10.00	1	70	1105
25.195	16.00	28.228	85.524	14.181	293.000	6.000	76.726	1.408e+18	0.506	-70.000	-40.000	10.00	10.00	1	71	1121
26.882	16.00	28.310	85.565	15.226	293.000	6.000	91.882	5.885e+17	0.211	-70.000	-50.000	10.00	10.00	1	72	1137
20.963	16.00	27.688	85.151	6.864	293.000	6.000	141.213	9.285e+17	0.333	-60.000	30.000	10.00	10.00	1	73	1153
19.764	16.00	27.771	85.190	7.909	293.000	6.000	117.106	5.161e+18	1.853	-60.000	20.000	10.00	10.00	1	74	1169
19.009	16.00	27.853	85.230	8.955	293.000	6.000	98.955	1.169e+19	4.199	-60.000	10.000	10.00	10.00	1	75	1185
18.750	16.00	27.935	85.270	10.000	293.000	6.000	102.489	1.343e+19	4.820	-60.000	0.000	10.00	10.00	1	76	1201
19.009	16.00	28.017	85.310	11.045	293.000	6.000	108.303	1.420e+19	5.099	-60.000	-10.000	10.00	10.00	1	77	1217
19.764	16.00	28.099	85.350	12.091	293.000	6.000	115.983	5.947e+18	2.135	-60.000	-20.000	10.00	10.00	1	78	1233
20.963	16.00	28.181	85.390	13.136	293.000	6.000	120.601	1.006e+18	0.361	-60.000	-30.000	10.00	10.00	1	79	1249
22.535	16.00	28.264	85.431	14.181	293.000	6.000	152.000	3.972e+17	0.143	-60.000	-40.000	10.00	10.00	1	80	1265
24.407	16.00	28.346	85.471	15.226	293.000	6.000	0.000	0.000e+00	0.000	-60.000	-50.000	10.00	10.00	1	81	1281
18.222	16.00	27.724	85.057	6.864	293.000	6.000	147.553	1.103e+18	0.396	-50.000	30.000	10.00	10.00	1	82	1297
16.829	16.00	27.806	85.097	7.909	293.000	6.000	119.121	6.006e+18	2.156	-50.000	20.000	10.00	10.00	1	83	1313
15.934	16.00	27.888	85.137	8.955	293.000	6.000	98.785	1.089e+19	3.910	-50.000	10.000	10.00	10.00	1	84	1329
15.625	16.00	27.970	85.177	10.000	293.000	6.000	97.430	1.484e+19	5.329	-50.000	0.000	10.00	10.00	1	85	1345
15.934	16.00	28.053	85.217	11.045	293.000	6.000	109.682	1.285e+19	4.614	-50.000	-10.000	10.00	10.00	1	86	1361
16.829	16.00	28.135	85.257	12.091	293.000	6.000	95.207	5.543e+18	1.990	-50.000	-20.000	10.00	10.00	1	87	1377
18.222	16.00	28.217	85.297	13.136	293.000	6.000	62.000	8.460e+17	0.304	-50.000	-30.000	10.00	10.00	1	88	1393
20.010	16.00	28.299	85.337	14.181	293.000	6.000	0.000	0.000e+00	0.000	-50.000	-40.000	10.00	10.00	1	89	1409

22.097	16.00	28.381	85.377	15.226	293.000	6.000	0.000	0.000e+00	0.000	-50.000	-50.000	10.00	10.00	1	90	1425
15.625	16.00	27.759	84.964	6.864	293.000	6.000	148.304	8.564e+17	0.307	-40.000	30.000	10.00	10.00	1	91	1441
13.975	16.00	27.841	85.003	7.909	293.000	6.000	119.844	6.102e+18	2.191	-40.000	20.000	10.00	10.00	1	92	1457
12.885	16.00	27.924	85.043	8.955	293.000	6.000	94.577	1.135e+19	4.075	-40.000	10.000	10.00	10.00	1	93	1473
12.500	16.00	28.006	85.083	10.000	293.000	6.000	100.830	1.406e+19	5.049	-40.000	0.000	10.00	10.00	1	94	1489
12.885	16.00	28.088	85.123	11.045	293.000	6.000	97.710	6.364e+18	2.285	-40.000	-10.000	10.00	10.00	1	95	1505
13.975	16.00	28.170	85.163	12.091	293.000	6.000	62.000	3.574e+18	1.283	-40.000	-20.000	10.00	10.00	1	96	1521
15.625	16.00	28.253	85.203	13.136	293.000	6.000	62.000	3.557e+18	1.277	-40.000	-30.000	10.00	10.00	1	97	1537
17.678	16.00	28.335	85.243	14.181	293.000	6.000	62.000	8.741e+17	0.314	-40.000	-40.000	10.00	10.00	1	98	1553
20.010	16.00	28.417	85.283	15.226	293.000	6.000	62.000	8.008e+17	0.288	-40.000	-50.000	10.00	10.00	1	99	1569
13.258	16.00	27.794	84.870	6.864	293.000	6.000	148.454	6.700e+17	0.241	-30.000	30.000	10.00	10.00	1	100	1585
11.267	16.00	27.877	84.910	7.909	293.000	6.000	129.983	2.563e+18	0.920	-30.000	20.000	10.00	10.00	1	101	1601
9.882	16.00	27.959	84.950	8.955	293.000	6.000	93.422	7.553e+18	2.712	-30.000	10.000	10.00	10.00	1	102	1617
9.375	16.00	28.041	84.989	10.000	293.000	6.000	111.957	8.836e+18	3.172	-30.000	0.000	10.00	10.00	1	103	1633
9.882	16.00	28.124	85.029	11.045	293.000	6.000	75.300	2.335e+18	0.838	-30.000	-10.000	10.00	10.00	1	104	1649
11.267	16.00	28.206	85.069	12.091	293.000	6.000	62.000	6.730e+17	0.242	-30.000	-20.000	10.00	10.00	1	105	1665
13.258	16.00	28.288	85.109	13.136	293.000	6.000	62.000	1.272e+18	0.457	-30.000	-30.000	10.00	10.00	1	106	1681
15.625	16.00	28.370	85.149	14.181	293.000	6.000	62.000	1.278e+18	0.459	-30.000	-40.000	10.00	10.00	1	107	1697
18.222	16.00	28.452	85.189	15.226	293.000	6.000	62.000	1.408e+18	0.506	-30.000	-50.000	10.00	10.00	1	108	1713
11.267	16.00	27.830	84.777	6.864	293.000	6.000	152.000	3.871e+16	0.014	-20.000	30.000	10.00	10.00	1	109	1729
8.839	16.00	27.912	84.816	7.909	293.000	6.000	152.000	9.450e+17	0.339	-20.000	20.000	10.00	10.00	1	110	1745
6.988	16.00	27.994	84.856	8.955	293.000	6.000	102.806	4.536e+18	1.628	-20.000	10.000	10.00	10.00	1	111	1761
6.250	16.00	28.077	84.896	10.000	293.000	6.000	114.337	3.943e+18	1.416	-20.000	0.000	10.00	10.00	1	112	1777
6.988	16.00	28.159	84.935	11.045	293.000	6.000	73.558	2.460e+18	0.883	-20.000	-10.000	10.00	10.00	1	113	1793
8.839	16.00	28.241	84.975	12.091	293.000	6.000	62.000	4.190e+17	0.150	-20.000	-20.000	10.00	10.00	1	114	1809
11.267	16.00	28.323	85.015	13.136	293.000	6.000	62.000	5.473e+17	0.196	-20.000	-30.000	10.00	10.00	1	115	1825
13.975	16.00	28.406	85.055	14.181	293.000	6.000	152.000	5.910e+17	0.212	-20.000	-40.000	10.00	10.00	1	116	1841
16.829	16.00	28.488	85.095	15.226	293.000	6.000	62.000	1.839e+18	0.660	-20.000	-50.000	10.00	10.00	1	117	1857
9.882	16.00	27.865	84.683	6.864	293.000	6.000	0.000	0.000e+00	0.000	-10.000	30.000	10.00	10.00	1	118	1873
6.988	16.00	27.947	84.723	7.909	293.000	6.000	0.000	0.000e+00	0.000	-10.000	20.000	10.00	10.00	1	119	1889
4.419	16.00	28.030	84.762	8.955	293.000	6.000	148.344	3.128e+18	1.123	-10.000	10.000	10.00	10.00	1	120	1905
3.125	16.00	28.112	84.802	10.000	293.000	6.000	90.037	4.615e+18	1.657	-10.000	0.000	10.00	10.00	1	121	1921
4.419	16.00	28.194	84.842	11.045	293.000	6.000	118.116	4.783e+18	1.717	-10.000	-10.000	10.00	10.00	1	122	1937
6.988	16.00	28.276	84.881	12.091	293.000	6.000	0.000	0.000e+00	0.000	-10.000	-20.000	10.00	10.00	1	123	1953

9.882	16.00	28.359	84.921	13.136	293.000	6.000	152.000	1.381e+16	0.005	-10.000	-30.000	10.00	10.00	1	124	1969
12.885	16.00	28.441	84.961	14.181	293.000	6.000	152.000	5.817e+16	0.021	-10.000	-40.000	10.00	10.00	1	125	1985
15.934	16.00	28.523	85.001	15.226	293.000	6.000	62.000	7.741e+17	0.278	-10.000	-50.000	10.00	10.00	1	126	2001
9.375	16.00	27.900	84.589	6.864	293.000	6.000	152.000	9.082e+16	0.033	0.000	30.000	10.00	10.00	1	127	2017
6.250	16.00	27.982	84.629	7.909	293.000	6.000	0.000	0.000e+00	0.000	0.000	20.000	10.00	10.00	1	128	2033
3.125	16.00	28.065	84.668	8.955	293.000	6.000	152.000	1.289e+18	0.463	0.000	10.000	10.00	10.00	1	129	2049
0.000	16.00	28.147	84.708	10.000	293.000	6.000	117.262	9.979e+17	0.358	0.000	0.000	10.00	10.00	1	130	2065
3.125	16.00	28.229	84.748	11.045	293.000	6.000	145.950	1.241e+18	0.446	0.000	-10.000	10.00	10.00	1	131	2081
6.250	16.00	28.312	84.787	12.091	293.000	6.000	0.000	0.000e+00	0.000	0.000	-20.000	10.00	10.00	1	132	2097
9.375	16.00	28.394	84.827	13.136	293.000	6.000	62.000	1.685e+18	0.605	0.000	-30.000	10.00	10.00	1	133	2113
12.500	16.00	28.476	84.867	14.181	293.000	6.000	152.000	2.729e+17	0.098	0.000	-40.000	10.00	10.00	1	134	2129
15.625	16.00	28.559	84.907	15.226	293.000	6.000	100.735	6.680e+17	0.240	0.000	-50.000	10.00	10.00	1	135	2145
9.882	16.00	27.935	84.496	6.864	293.000	6.000	151.547	2.296e+17	0.082	10.000	30.000	10.00	10.00	1	136	2161
6.988	16.00	28.017	84.535	7.909	293.000	6.000	0.000	0.000e+00	0.000	10.000	20.000	10.00	10.00	1	137	2177
4.419	16.00	28.100	84.575	8.955	293.000	6.000	152.000	2.555e+17	0.092	10.000	10.000	10.00	10.00	1	138	2193
3.125	16.00	28.182	84.614	10.000	293.000	6.000	152.000	4.120e+17	0.148	10.000	0.000	10.00	10.00	1	139	2209
4.419	16.00	28.264	84.654	11.045	293.000	6.000	130.995	2.004e+17	0.072	10.000	-10.000	10.00	10.00	1	140	2225
6.988	16.00	28.347	84.693	12.091	293.000	6.000	62.000	5.598e+16	0.020	10.000	-20.000	10.00	10.00	1	141	2241
9.882	16.00	28.429	84.733	13.136	293.000	6.000	152.000	6.262e+16	0.022	10.000	-30.000	10.00	10.00	1	142	2257
12.885	16.00	28.511	84.773	14.181	293.000	6.000	63.068	5.372e+17	0.193	10.000	-40.000	10.00	10.00	1	143	2273
15.934	16.00	28.594	84.813	15.226	293.000	6.000	71.198	6.725e+17	0.241	10.000	-50.000	10.00	10.00	1	144	2289
11.267	16.00	27.970	84.402	6.864	293.000	6.000	152.000	2.478e+17	0.089	20.000	30.000	10.00	10.00	1	145	2305
8.839	16.00	28.052	84.441	7.909	293.000	6.000	82.462	7.740e+16	0.028	20.000	20.000	10.00	10.00	1	146	2321
6.988	16.00	28.135	84.481	8.955	293.000	6.000	152.000	1.032e+17	0.037	20.000	10.000	10.00	10.00	1	147	2337
6.250	16.00	28.217	84.520	10.000	293.000	6.000	152.000	2.388e+17	0.086	20.000	0.000	10.00	10.00	1	148	2353
6.988	16.00	28.300	84.560	11.045	293.000	6.000	62.000	2.671e+17	0.096	20.000	-10.000	10.00	10.00	1	149	2369
8.839	16.00	28.382	84.599	12.091	293.000	6.000	152.000	1.546e+18	0.555	20.000	-20.000	10.00	10.00	1	150	2385
11.267	16.00	28.464	84.639	13.136	293.000	6.000	122.269	3.232e+17	0.116	20.000	-30.000	10.00	10.00	1	151	2401
13.975	16.00	28.547	84.679	14.181	293.000	6.000	62.000	6.204e+17	0.223	20.000	-40.000	10.00	10.00	1	152	2417
16.829	16.00	28.629	84.718	15.226	293.000	6.000	104.651	2.105e+17	0.076	20.000	-50.000	10.00	10.00	1	153	2433
13.258	16.00	28.005	84.308	6.864	293.000	6.000	125.148	1.232e+17	0.044	30.000	30.000	10.00	10.00	1	154	2449
11.267	16.00	28.087	84.347	7.909	293.000	6.000	152.000	8.444e+16	0.030	30.000	20.000	10.00	10.00	1	155	2465
9.882	16.00	28.170	84.387	8.955	293.000	6.000	152.000	7.874e+16	0.028	30.000	10.000	10.00	10.00	1	156	2481
9.375	16.00	28.252	84.426	10.000	293.000	6.000	152.000	8.407e+16	0.030	30.000	0.000	10.00	10.00	1	157	2497

9.882	16.00	28.335	84.466	11.045	293.000	6.000	62.000	8.826e+16	0.032	30.000	-10.000	10.00	10.00	1	158	2513
11.267	16.00	28.417	84.505	12.091	293.000	6.000	146.595	6.103e+17	0.219	30.000	-20.000	10.00	10.00	1	159	2529
13.258	16.00	28.499	84.545	13.136	293.000	6.000	62.000	1.879e+18	0.675	30.000	-30.000	10.00	10.00	1	160	2545
15.625	16.00	28.582	84.584	14.181	293.000	6.000	92.747	2.609e+18	0.937	30.000	-40.000	10.00	10.00	1	161	2561
18.222	16.00	28.664	84.624	15.226	293.000	6.000	101.076	2.752e+18	0.988	30.000	-50.000	10.00	10.00	1	162	2577

Bayesian Inversion results

Nepal_Main event 2015/ 4/25 Mag:7.86 FFM inverted from hr-GPS/teleseismic/static-GPS/InSAR/
GF built reference to local 1-D model
Initial time at 6:11:26
Hypocenter at 28.15 N, 84.71 E, 10 km
Node locate at the center of each subfault

< Subevent sequence >

time	lat	lon	depth	strike	dip	rake	xinc	yinc	slip_pall	slip_noml	Vr	Tr	sig_spal	sig_snl	sig_Vr	sig_Tr
43.46	27.40	85.90	6.86	293.00	6.00	107.00	10.00	10.00	0.22	0.35	3.65	8.97	0.17	0.11	0.21	1.28
43.52	27.48	85.94	7.91	293.00	6.00	107.00	10.00	10.00	-0.47	-0.79	3.17	14.73	0.23	0.23	0.29	0.95
41.62	27.57	85.98	8.95	293.00	6.00	107.00	10.00	10.00	0.81	0.02	3.28	7.68	0.26	0.25	0.29	1.22
40.22	27.65	86.02	10.00	293.00	6.00	107.00	10.00	10.00	2.67	0.90	3.56	7.73	0.29	0.24	0.25	0.83
39.99	27.73	86.06	11.05	293.00	6.00	107.00	10.00	10.00	1.08	-0.57	3.51	7.93	0.29	0.28	0.26	0.84
41.00	27.81	86.10	12.09	293.00	6.00	107.00	10.00	10.00	0.54	0.39	3.31	12.63	0.34	0.29	0.30	1.47
42.37	27.89	86.14	13.14	293.00	6.00	107.00	10.00	10.00	0.13	-0.01	3.54	13.01	0.32	0.29	0.24	1.16
43.28	27.98	86.18	14.18	293.00	6.00	107.00	10.00	10.00	0.64	0.43	3.39	10.82	0.28	0.31	0.32	1.03
44.37	28.06	86.22	15.23	293.00	6.00	107.00	10.00	10.00	-0.27	0.17	3.30	10.83	0.35	0.29	0.28	1.03
40.54	27.44	85.80	6.86	293.00	6.00	107.00	10.00	10.00	-0.28	-0.35	3.10	14.23	0.11	0.16	0.29	1.61
40.55	27.52	85.84	7.91	293.00	6.00	107.00	10.00	10.00	0.25	-0.31	3.43	7.85	0.19	0.21	0.29	1.25
39.28	27.60	85.88	8.95	293.00	6.00	107.00	10.00	10.00	1.22	-0.07	2.80	5.55	0.21	0.24	0.21	0.68
37.48	27.68	85.92	10.00	293.00	6.00	107.00	10.00	10.00	2.62	0.95	3.47	7.54	0.27	0.26	0.26	0.77
37.18	27.77	85.96	11.05	293.00	6.00	107.00	10.00	10.00	0.96	-0.35	3.59	9.96	0.31	0.26	0.23	0.97
38.38	27.85	86.00	12.09	293.00	6.00	107.00	10.00	10.00	0.12	0.71	2.76	11.79	0.39	0.32	0.18	1.15
39.37	27.93	86.04	13.14	293.00	6.00	107.00	10.00	10.00	0.40	0.53	2.97	9.66	0.32	0.35	0.25	1.12
40.31	28.01	86.09	14.18	293.00	6.00	107.00	10.00	10.00	0.45	-0.17	3.00	10.47	0.37	0.34	0.30	1.10
41.71	28.09	86.13	15.23	293.00	6.00	107.00	10.00	10.00	0.69	0.36	3.44	11.80	0.36	0.29	0.26	1.07
37.54	27.47	85.71	6.86	293.00	6.00	107.00	10.00	10.00	0.26	-0.25	3.49	9.45	0.17	0.16	0.26	1.11
37.50	27.56	85.75	7.91	293.00	6.00	107.00	10.00	10.00	0.23	0.09	3.01	10.84	0.20	0.20	0.24	1.09
36.57	27.64	85.79	8.95	293.00	6.00	107.00	10.00	10.00	2.58	-0.10	3.10	9.18	0.20	0.21	0.28	0.66
34.76	27.72	85.83	10.00	293.00	6.00	107.00	10.00	10.00	3.68	0.57	3.42	7.82	0.25	0.25	0.27	0.64
34.33	27.80	85.87	11.05	293.00	6.00	107.00	10.00	10.00	0.56	-0.54	3.39	11.16	0.32	0.28	0.26	1.34

35.27	27.88	85.91	12.09	293.00	6.00	107.00	10.00	10.00	-0.34	1.22	3.09	9.30	0.27	0.29	0.28	1.01
36.11	27.97	85.95	13.14	293.00	6.00	107.00	10.00	10.00	0.40	0.34	2.98	13.18	0.33	0.33	0.25	1.20
37.52	28.05	85.99	14.18	293.00	6.00	107.00	10.00	10.00	-0.77	-0.44	3.39	8.75	0.23	0.30	0.25	1.03
39.66	28.13	86.03	15.23	293.00	6.00	107.00	10.00	10.00	0.70	0.20	3.61	7.60	0.39	0.30	0.23	1.15
34.76	27.51	85.62	6.86	293.00	6.00	107.00	10.00	10.00	0.08	-0.07	3.50	10.89	0.16	0.18	0.23	1.20
34.23	27.59	85.66	7.91	293.00	6.00	107.00	10.00	10.00	0.57	0.36	3.00	12.36	0.20	0.21	0.28	1.13
33.81	27.67	85.70	8.95	293.00	6.00	107.00	10.00	10.00	2.58	0.09	3.20	9.59	0.20	0.22	0.29	0.79
32.08	27.76	85.74	10.00	293.00	6.00	107.00	10.00	10.00	4.10	0.22	3.02	9.53	0.25	0.23	0.26	0.72
31.27	27.84	85.78	11.05	293.00	6.00	107.00	10.00	10.00	1.80	-0.49	3.13	5.84	0.32	0.27	0.26	0.84
32.13	27.92	85.82	12.09	293.00	6.00	107.00	10.00	10.00	1.86	0.45	2.79	11.88	0.32	0.29	0.20	0.96
33.21	28.00	85.86	13.14	293.00	6.00	107.00	10.00	10.00	1.45	0.84	3.39	10.86	0.38	0.30	0.27	1.10
35.43	28.08	85.90	14.18	293.00	6.00	107.00	10.00	10.00	2.13	0.34	3.03	11.47	0.45	0.30	0.30	0.99
37.53	28.17	85.94	15.23	293.00	6.00	107.00	10.00	10.00	0.01	0.14	2.99	6.95	0.41	0.29	0.28	1.22
31.80	27.55	85.52	6.86	293.00	6.00	107.00	10.00	10.00	0.17	0.00	3.14	10.91	0.16	0.17	0.29	1.09
31.26	27.63	85.56	7.91	293.00	6.00	107.00	10.00	10.00	0.60	0.64	3.65	12.85	0.19	0.21	0.20	1.13
30.79	27.71	85.60	8.95	293.00	6.00	107.00	10.00	10.00	2.86	-0.09	2.95	10.08	0.21	0.20	0.24	0.67
29.33	27.79	85.64	10.00	293.00	6.00	107.00	10.00	10.00	4.56	0.91	2.82	8.36	0.23	0.22	0.21	0.62
28.31	27.87	85.68	11.05	293.00	6.00	107.00	10.00	10.00	5.26	-1.25	3.68	6.29	0.29	0.29	0.18	0.62
29.10	27.96	85.72	12.09	293.00	6.00	107.00	10.00	10.00	3.58	0.00	3.53	10.07	0.34	0.34	0.24	1.31
30.94	28.04	85.76	13.14	293.00	6.00	107.00	10.00	10.00	2.73	-0.72	3.18	11.23	0.41	0.35	0.30	1.02
33.11	28.12	85.81	14.18	293.00	6.00	107.00	10.00	10.00	-0.45	-0.07	3.38	11.46	0.29	0.30	0.26	1.29
34.63	28.20	85.85	15.23	293.00	6.00	107.00	10.00	10.00	0.91	-0.01	3.31	12.44	0.37	0.28	0.30	1.11
28.60	27.58	85.43	6.86	293.00	6.00	107.00	10.00	10.00	0.19	-0.14	2.99	10.18	0.16	0.13	0.28	1.04
28.24	27.66	85.47	7.91	293.00	6.00	107.00	10.00	10.00	0.49	0.42	2.80	5.89	0.17	0.24	0.22	1.52
27.36	27.75	85.51	8.95	293.00	6.00	107.00	10.00	10.00	3.38	0.57	2.76	7.73	0.21	0.20	0.20	1.21
26.37	27.83	85.55	10.00	293.00	6.00	107.00	10.00	10.00	5.95	0.21	3.02	8.18	0.25	0.22	0.25	0.62
25.52	27.91	85.59	11.05	293.00	6.00	107.00	10.00	10.00	4.39	0.43	3.43	14.66	0.28	0.26	0.21	0.74
26.54	27.99	85.63	12.09	293.00	6.00	107.00	10.00	10.00	2.38	-0.76	3.26	4.68	0.29	0.28	0.27	0.71
28.68	28.07	85.67	13.14	293.00	6.00	107.00	10.00	10.00	4.42	0.52	2.97	10.85	0.39	0.33	0.25	0.69
30.62	28.16	85.71	14.18	293.00	6.00	107.00	10.00	10.00	1.78	-0.02	2.97	7.98	0.43	0.32	0.24	0.83
31.86	28.24	85.75	15.23	293.00	6.00	107.00	10.00	10.00	0.78	-0.02	3.56	9.38	0.39	0.29	0.22	1.37
25.56	27.62	85.34	6.86	293.00	6.00	107.00	10.00	10.00	0.18	-0.24	3.46	10.19	0.10	0.13	0.27	1.64
24.94	27.70	85.38	7.91	293.00	6.00	107.00	10.00	10.00	0.97	0.77	3.27	6.59	0.13	0.15	0.30	0.87
24.14	27.78	85.42	8.95	293.00	6.00	107.00	10.00	10.00	4.43	1.23	3.41	6.40	0.18	0.17	0.25	0.74

23.72	27.86	85.46	10.00	293.00	6.00	107.00	10.00	10.00	6.61	-0.19	3.03	9.38	0.23	0.22	0.23	0.45
22.72	27.95	85.50	11.05	293.00	6.00	107.00	10.00	10.00	3.38	-0.44	3.71	6.40	0.29	0.24	0.18	0.59
24.06	28.03	85.54	12.09	293.00	6.00	107.00	10.00	10.00	2.55	-0.28	3.15	13.38	0.36	0.33	0.29	1.02
26.13	28.11	85.58	13.14	293.00	6.00	107.00	10.00	10.00	0.54	-0.04	3.07	9.62	0.42	0.32	0.28	1.09
27.72	28.19	85.62	14.18	293.00	6.00	107.00	10.00	10.00	0.06	0.36	2.90	12.50	0.40	0.32	0.23	1.16
29.43	28.27	85.66	15.23	293.00	6.00	107.00	10.00	10.00	0.61	0.17	3.51	10.86	0.34	0.32	0.26	1.15
22.85	27.65	85.24	6.86	293.00	6.00	107.00	10.00	10.00	0.32	0.13	3.33	10.61	0.15	0.10	0.28	0.99
21.87	27.74	85.28	7.91	293.00	6.00	107.00	10.00	10.00	1.81	0.45	3.14	5.88	0.10	0.16	0.25	0.57
21.24	27.82	85.32	8.95	293.00	6.00	107.00	10.00	10.00	4.29	0.80	2.99	7.40	0.17	0.15	0.21	0.52
20.66	27.90	85.36	10.00	293.00	6.00	107.00	10.00	10.00	5.86	0.04	2.78	10.24	0.21	0.24	0.18	0.54
20.09	27.98	85.40	11.05	293.00	6.00	107.00	10.00	10.00	5.61	-0.22	3.78	7.15	0.30	0.27	0.14	0.44
21.65	28.06	85.44	12.09	293.00	6.00	107.00	10.00	10.00	2.81	-0.82	2.95	15.00	0.31	0.28	0.27	0.55
23.16	28.15	85.48	13.14	293.00	6.00	107.00	10.00	10.00	1.04	0.02	3.12	10.81	0.39	0.27	0.28	1.10
25.02	28.23	85.52	14.18	293.00	6.00	107.00	10.00	10.00	0.91	0.85	3.06	12.10	0.42	0.33	0.28	1.35
27.46	28.31	85.56	15.23	293.00	6.00	107.00	10.00	10.00	0.67	0.84	3.26	12.15	0.37	0.34	0.27	1.21
20.29	27.69	85.15	6.86	293.00	6.00	107.00	10.00	10.00	0.44	0.31	3.24	11.70	0.16	0.17	0.33	1.06
18.84	27.77	85.19	7.91	293.00	6.00	107.00	10.00	10.00	1.69	-0.78	3.28	6.41	0.18	0.15	0.26	0.73
18.15	27.85	85.23	8.95	293.00	6.00	107.00	10.00	10.00	4.11	0.67	3.09	7.06	0.17	0.18	0.30	0.46
17.45	27.94	85.27	10.00	293.00	6.00	107.00	10.00	10.00	4.45	0.35	3.64	6.49	0.23	0.23	0.22	0.59
17.43	28.02	85.31	11.05	293.00	6.00	107.00	10.00	10.00	5.61	-0.18	3.54	7.57	0.28	0.28	0.20	0.49
18.84	28.10	85.35	12.09	293.00	6.00	107.00	10.00	10.00	1.93	-0.87	2.92	8.65	0.29	0.27	0.24	1.19
20.41	28.18	85.39	13.14	293.00	6.00	107.00	10.00	10.00	0.50	0.04	3.22	12.42	0.36	0.25	0.30	1.27
22.89	28.26	85.43	14.18	293.00	6.00	107.00	10.00	10.00	0.69	-0.13	2.87	9.41	0.36	0.28	0.22	1.27
25.42	28.35	85.47	15.23	293.00	6.00	107.00	10.00	10.00	0.01	-0.11	2.94	11.65	0.34	0.31	0.24	1.44
17.83	27.72	85.06	6.86	293.00	6.00	107.00	10.00	10.00	0.18	0.02	2.81	8.07	0.16	0.20	0.20	1.53
15.90	27.81	85.10	7.91	293.00	6.00	107.00	10.00	10.00	2.40	-0.70	3.14	5.59	0.19	0.17	0.29	0.61
14.98	27.89	85.14	8.95	293.00	6.00	107.00	10.00	10.00	3.77	0.89	2.95	6.76	0.21	0.21	0.26	0.62
14.39	27.97	85.18	10.00	293.00	6.00	107.00	10.00	10.00	5.29	0.67	2.92	7.38	0.24	0.25	0.19	0.62
14.69	28.05	85.22	11.05	293.00	6.00	107.00	10.00	10.00	4.46	-0.10	3.42	12.62	0.27	0.34	0.22	1.19
16.10	28.13	85.26	12.09	293.00	6.00	107.00	10.00	10.00	2.08	-0.33	3.54	7.56	0.31	0.31	0.23	1.23
18.27	28.22	85.30	13.14	293.00	6.00	107.00	10.00	10.00	-0.64	0.96	3.23	7.12	0.28	0.29	0.29	1.14
20.63	28.30	85.34	14.18	293.00	6.00	107.00	10.00	10.00	0.10	-0.39	3.02	8.28	0.28	0.29	0.26	1.12
23.12	28.38	85.38	15.23	293.00	6.00	107.00	10.00	10.00	0.23	0.42	2.80	11.45	0.42	0.38	0.21	1.36
15.29	27.76	84.96	6.86	293.00	6.00	107.00	10.00	10.00	0.09	0.07	2.96	9.38	0.17	0.17	0.24	1.19

13.09	27.84	85.00	7.91	293.00	6.00	107.00	10.00	10.00	2.24	-0.67	3.18	7.24	0.19	0.19	0.26	1.16
11.78	27.92	85.04	8.95	293.00	6.00	107.00	10.00	10.00	4.09	1.15	3.11	5.55	0.21	0.20	0.25	0.60
11.20	28.01	85.08	10.00	293.00	6.00	107.00	10.00	10.00	5.46	0.43	3.43	6.73	0.21	0.22	0.23	0.58
12.00	28.09	85.12	11.05	293.00	6.00	107.00	10.00	10.00	1.56	0.32	3.37	13.61	0.26	0.26	0.25	1.16
13.88	28.17	85.16	12.09	293.00	6.00	107.00	10.00	10.00	0.32	0.34	3.16	8.74	0.31	0.26	0.28	1.36
16.03	28.25	85.20	13.14	293.00	6.00	107.00	10.00	10.00	0.09	1.03	3.05	10.50	0.31	0.26	0.26	1.81
18.23	28.33	85.24	14.18	293.00	6.00	107.00	10.00	10.00	-0.36	-0.24	2.94	7.35	0.32	0.32	0.27	1.52
20.89	28.42	85.28	15.23	293.00	6.00	107.00	10.00	10.00	0.19	0.79	3.23	11.66	0.37	0.36	0.29	2.16
13.04	27.79	84.87	6.86	293.00	6.00	107.00	10.00	10.00	-0.07	-0.01	2.96	8.03	0.17	0.16	0.24	1.14
10.61	27.88	84.91	7.91	293.00	6.00	107.00	10.00	10.00	0.65	-0.32	3.13	12.44	0.21	0.20	0.29	1.86
8.82	27.96	84.95	8.95	293.00	6.00	107.00	10.00	10.00	2.74	1.03	3.30	5.38	0.21	0.21	0.24	0.71
8.20	28.04	84.99	10.00	293.00	6.00	107.00	10.00	10.00	3.47	-0.49	3.21	6.47	0.25	0.23	0.21	0.75
9.33	28.12	85.03	11.05	293.00	6.00	107.00	10.00	10.00	0.56	-0.06	2.99	14.26	0.30	0.26	0.27	0.99
11.49	28.21	85.07	12.09	293.00	6.00	107.00	10.00	10.00	-0.24	0.18	3.07	9.77	0.32	0.28	0.24	1.30
13.66	28.29	85.11	13.14	293.00	6.00	107.00	10.00	10.00	-0.17	-0.21	3.51	12.49	0.33	0.33	0.22	1.43
16.38	28.37	85.15	14.18	293.00	6.00	107.00	10.00	10.00	0.14	0.75	2.75	13.95	0.37	0.35	0.20	1.35
18.80	28.45	85.19	15.23	293.00	6.00	107.00	10.00	10.00	-0.44	0.19	3.40	12.99	0.34	0.35	0.27	1.39
10.71	27.83	84.78	6.86	293.00	6.00	107.00	10.00	10.00	-0.25	-0.14	3.52	8.94	0.15	0.18	0.25	1.40
8.59	27.91	84.82	7.91	293.00	6.00	107.00	10.00	10.00	-0.18	-0.23	3.25	9.55	0.19	0.19	0.28	1.13
6.31	27.99	84.86	8.95	293.00	6.00	107.00	10.00	10.00	1.23	0.15	3.65	8.70	0.21	0.20	0.21	1.95
5.29	28.08	84.90	10.00	293.00	6.00	107.00	10.00	10.00	0.86	-0.41	3.76	8.75	0.26	0.21	0.15	1.34
6.82	28.16	84.94	11.05	293.00	6.00	107.00	10.00	10.00	0.64	0.36	3.05	8.57	0.27	0.25	0.24	1.48
9.33	28.24	84.98	12.09	293.00	6.00	107.00	10.00	10.00	-0.35	0.05	3.06	10.79	0.29	0.25	0.30	1.34
11.57	28.32	85.02	13.14	293.00	6.00	107.00	10.00	10.00	0.12	-0.41	2.96	14.36	0.31	0.29	0.27	0.94
14.31	28.41	85.06	14.18	293.00	6.00	107.00	10.00	10.00	-0.04	-0.74	2.97	9.25	0.28	0.31	0.26	0.96
17.21	28.49	85.10	15.23	293.00	6.00	107.00	10.00	10.00	-0.11	0.76	3.22	8.11	0.35	0.29	0.29	1.47
9.23	27.86	84.68	6.86	293.00	6.00	107.00	10.00	10.00	-0.04	-0.23	3.36	10.66	0.16	0.18	0.27	1.05
6.64	27.95	84.72	7.91	293.00	6.00	107.00	10.00	10.00	-0.35	0.18	3.57	9.27	0.19	0.20	0.23	1.17
4.31	28.03	84.76	8.95	293.00	6.00	107.00	10.00	10.00	0.77	-0.84	3.16	10.68	0.22	0.21	0.30	1.80
2.65	28.11	84.80	10.00	293.00	6.00	107.00	10.00	10.00	1.69	0.69	3.78	8.61	0.30	0.22	0.14	1.86
4.71	28.19	84.84	11.05	293.00	6.00	107.00	10.00	10.00	1.51	-0.74	2.84	12.95	0.27	0.28	0.27	1.08
7.06	28.28	84.88	12.09	293.00	6.00	107.00	10.00	10.00	-0.32	-0.27	3.55	11.24	0.27	0.26	0.23	1.44
9.82	28.36	84.92	13.14	293.00	6.00	107.00	10.00	10.00	0.13	-0.15	3.08	7.86	0.29	0.27	0.26	1.20
13.08	28.44	84.96	14.18	293.00	6.00	107.00	10.00	10.00	0.19	0.34	2.85	11.44	0.35	0.29	0.23	1.19

16.44	28.52	85.00	15.23	293.00	6.00	107.00	10.00	10.00	0.10	-0.35	2.84	10.47	0.37	0.32	0.21	1.10
8.57	27.90	84.59	6.86	293.00	6.00	107.00	10.00	10.00	0.01	-0.15	3.51	12.12	0.17	0.18	0.26	1.33
5.74	27.98	84.63	7.91	293.00	6.00	107.00	10.00	10.00	-0.09	0.00	3.53	12.53	0.19	0.18	0.25	1.24
2.87	28.06	84.67	8.95	293.00	6.00	107.00	10.00	10.00	-0.03	-0.37	3.40	6.15	0.24	0.20	0.29	1.22
0.30	28.15	84.71	10.00	293.00	6.00	107.00	10.00	10.00	0.05	-0.22	3.31	8.60	0.26	0.26	0.26	1.59
3.17	28.23	84.75	11.05	293.00	6.00	107.00	10.00	10.00	-0.11	-0.64	3.36	11.86	0.25	0.24	0.29	1.25
6.26	28.31	84.79	12.09	293.00	6.00	107.00	10.00	10.00	-0.27	0.25	3.12	9.96	0.28	0.27	0.27	1.17
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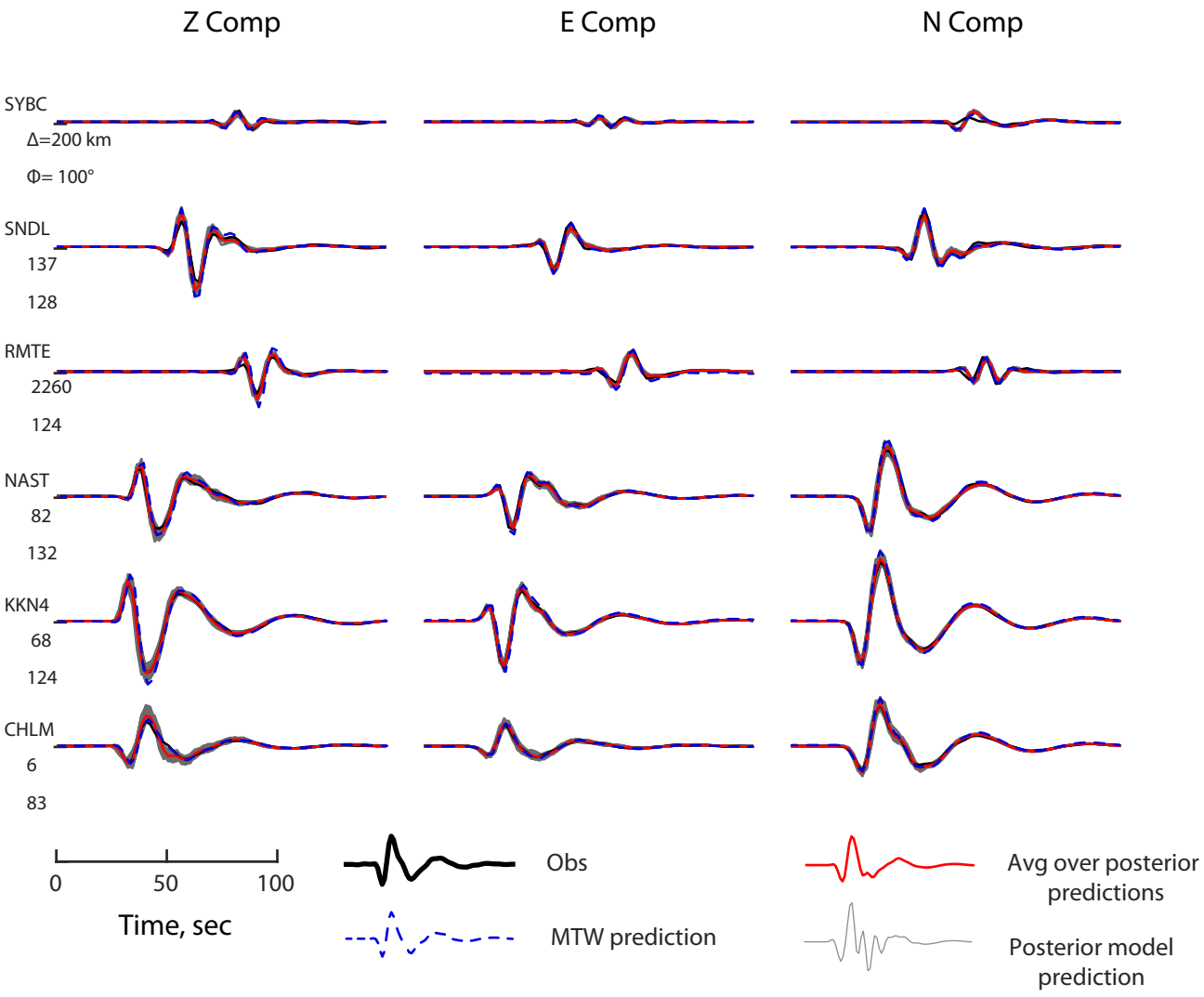
12.41	28.48	84.87	14.18	293.00	6.00	107.00	10.00	10.00	-0.27	-0.19	2.88	10.65	0.32	0.29	0.25	1.29
15.84	28.56	84.91	15.23	293.00	6.00	107.00	10.00	10.00	0.21	-0.38	2.94	8.51	0.41	0.32	0.26	1.30
9.50	27.93	84.50	6.86	293.00	6.00	107.00	10.00	10.00	0.05	-0.17	3.30	10.52	0.16	0.17	0.32	1.43
6.91	28.02	84.54	7.91	293.00	6.00	107.00	10.00	10.00	-0.29	-0.07	3.33	8.33	0.20	0.20	0.31	1.38
4.64	28.10	84.57	8.95	293.00	6.00	107.00	10.00	10.00	-0.34	-0.03	3.19	7.89	0.23	0.23	0.30	1.42
3.44	28.18	84.61	10.00	293.00	6.00	107.00	10.00	10.00	-0.03	-0.48	2.95	10.90	0.24	0.24	0.26	1.25
4.99	28.26	84.65	11.05	293.00	6.00	107.00	10.00	10.00	-0.16	0.08	2.98	8.91	0.26	0.24	0.26	1.21
7.34	28.35	84.69	12.09	293.00	6.00	107.00	10.00	10.00	-0.30	0.46	3.23	7.12	0.29	0.27	0.30	1.04
9.95	28.43	84.73	13.14	293.00	6.00	107.00	10.00	10.00	0.03	-0.40	3.47	9.48	0.30	0.29	0.27	1.29
12.79	28.51	84.77	14.18	293.00	6.00	107.00	10.00	10.00	0.27	0.27	3.23	8.86	0.30	0.31	0.32	1.18
15.76	28.59	84.81	15.23	293.00	6.00	107.00	10.00	10.00	0.55	-0.67	3.28	7.09	0.33	0.31	0.31	1.19
11.09	27.97	84.40	6.86	293.00	6.00	107.00	10.00	10.00	-0.05	-0.24	3.35	10.00	0.16	0.17	0.32	1.44
8.88	28.05	84.44	7.91	293.00	6.00	107.00	10.00	10.00	-0.17	0.06	3.63	9.61	0.18	0.20	0.23	1.15
7.58	28.13	84.48	8.95	293.00	6.00	107.00	10.00	10.00	-0.30	-0.17	2.89	9.76	0.22	0.22	0.25	1.35
6.81	28.22	84.52	10.00	293.00	6.00	107.00	10.00	10.00	-0.25	0.08	2.96	12.63	0.22	0.23	0.23	1.22
7.51	28.30	84.56	11.05	293.00	6.00	107.00	10.00	10.00	0.05	0.25	3.54	8.32	0.24	0.23	0.24	1.21
9.52	28.38	84.60	12.09	293.00	6.00	107.00	10.00	10.00	-0.07	-1.17	3.18	13.08	0.30	0.28	0.31	1.13
11.62	28.46	84.64	13.14	293.00	6.00	107.00	10.00	10.00	-0.28	-0.08	3.43	11.23	0.30	0.29	0.27	1.56
14.07	28.55	84.68	14.18	293.00	6.00	107.00	10.00	10.00	-0.49	0.25	3.20	9.59	0.28	0.25	0.28	1.20
16.66	28.63	84.72	15.23	293.00	6.00	107.00	10.00	10.00	-0.24	-0.63	3.56	8.73	0.36	0.30	0.25	1.31
13.29	28.00	84.31	6.86	293.00	6.00	107.00	10.00	10.00	0.11	-0.08	2.92	8.79	0.18	0.18	0.25	1.25
11.41	28.09	84.35	7.91	293.00	6.00	107.00	10.00	10.00	-0.10	0.05	3.47	8.84	0.18	0.19	0.26	1.32
10.64	28.17	84.39	8.95	293.00	6.00	107.00	10.00	10.00	-0.19	-0.23	3.28	11.69	0.21	0.21	0.28	1.21
10.19	28.25	84.43	10.00	293.00	6.00	107.00	10.00	10.00	-0.24	0.10	2.96	11.55	0.23	0.23	0.24	1.34
10.30	28.33	84.47	11.05	293.00	6.00	107.00	10.00	10.00	-0.16	0.17	3.17	10.49	0.24	0.24	0.32	1.53
11.65	28.42	84.51	12.09	293.00	6.00	107.00	10.00	10.00	0.34	-0.27	3.41	9.37	0.28	0.26	0.28	1.09

13.76	28.50	84.54	13.14	293.00	6.00	107.00	10.00	10.00	0.63	0.34	3.39	8.37	0.28	0.27	0.28	1.35
15.87	28.58	84.58	14.18	293.00	6.00	107.00	10.00	10.00	0.60	0.22	3.32	12.15	0.30	0.31	0.28	1.29
18.52	28.66	84.62	15.23	293.00	6.00	107.00	10.00	10.00	1.33	-0.03	2.94	13.45	0.36	0.29	0.26	0.98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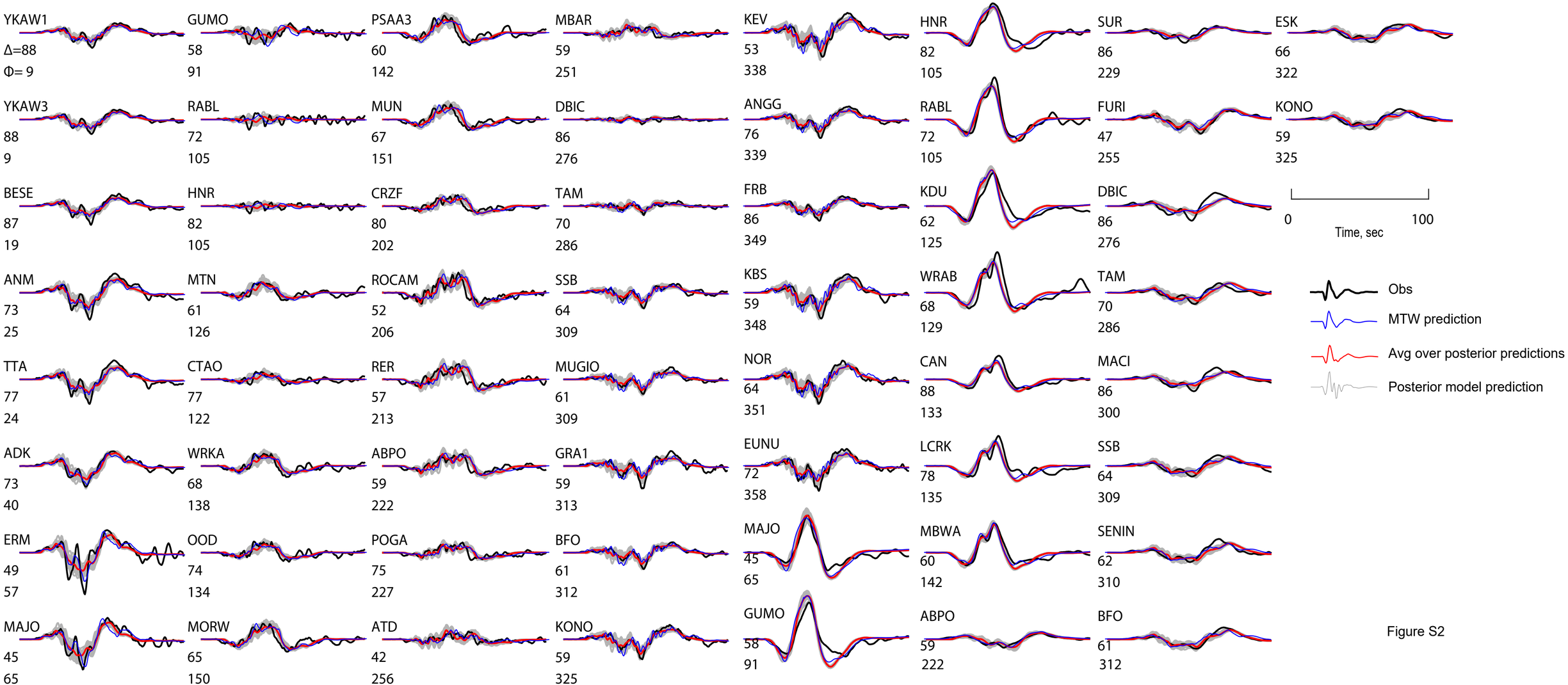
Time, sec
Obs
MTW prediction
Avg over posterior predictions
Posterior model prediction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53
338
HNR
82
105
SUR
86
229
ESK
66
322
YKAW3
88
9
RABL
72
105
MUN
67
151
DBIC
86
276
ANGG
76
339
RABL
72
105
FURI
47
255
KONO
59
325
BESE
87
19
HNR
82
105
CRZF
80
202
TAM
70
286
FRB
86
349
KDU
62
125
DBIC
86
276
0
100
Time, sec
ANM
73
25
MTN
61
126
ROCAM
52
206
SSB
64
309
KBS
59
348
WRAB
68
129
TAM
70
286
Obs
MTW prediction
Avg over posterior predictions
Posterior model prediction
TTA
77
24
CTAO
77
122
RER
57
213
MUGIO
61
309
NOR
64
351
CAN
88
133
MACI
86
300
ADK
73
40
WRKA
68
138
ABPO
59
222
GRA1
59
313
EUNU
72
358
LCRK
78
135
SSB
64
309
ERM
49
57
OOD
74
134
POGA
75
227
BFO
61
312
MAJO
45
65
MBWA
60
142
SENIN
62
310
MAJO
45
65
MORW
65
150
ATD
42
256
KONO
59
325
GUMO
58
91
ABPO
59
222
BFO
61
312

Figure S2

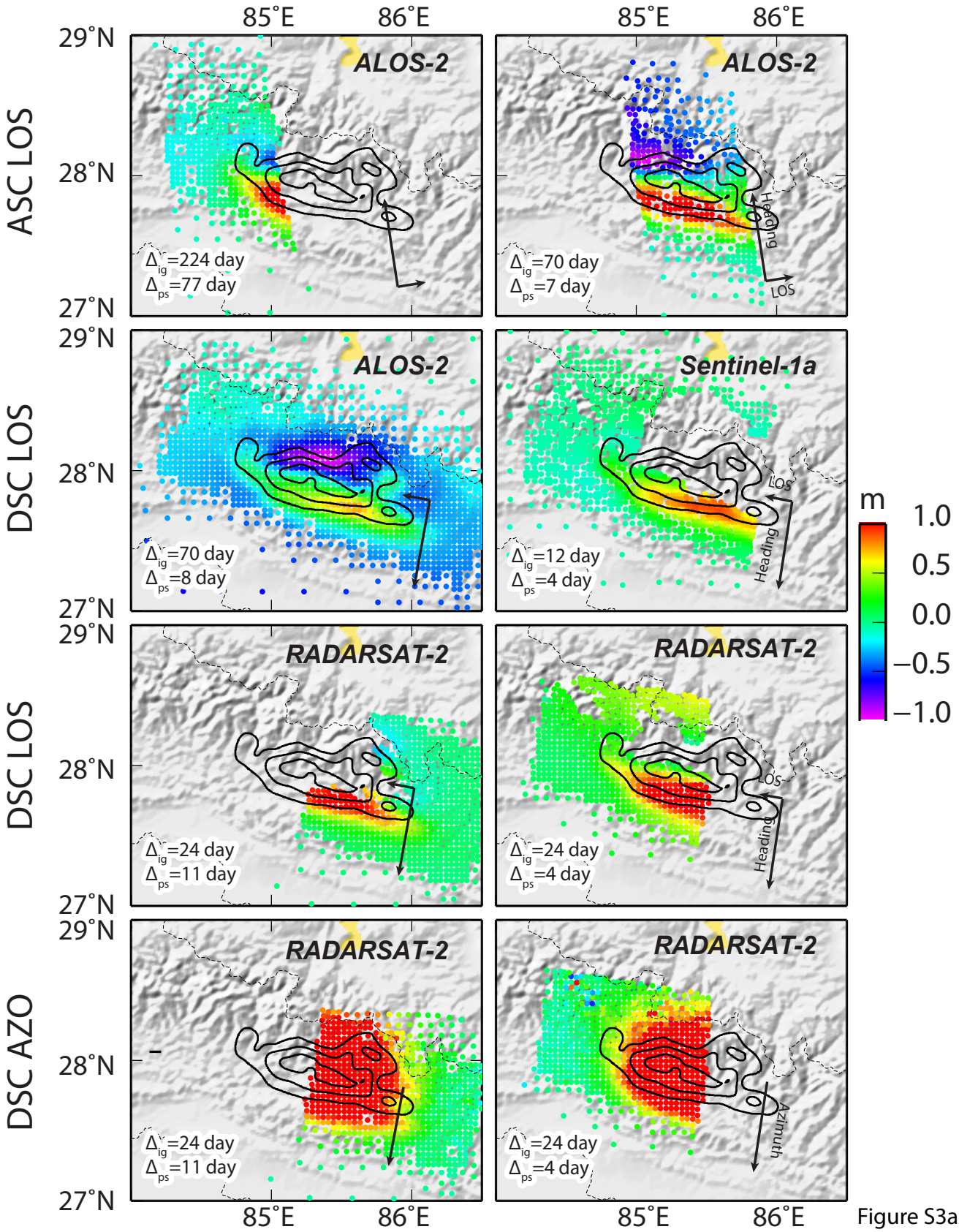
Predicted ground displacement
ASC LOS
DSC LOS
DSC LOS
DSC AZO
ALOS-2
ALOS-2
ALOS-2
Sentinel-1a
RADARSAT-2
RADARSAT-2
RADARSAT-2
RADARSAT-2
Δig=224 day
Δps=77 day
Δig=70 day
Δps=7 day
Δig=70 day
Δps=8 day
Δig=12 day
Δps=4 day
Δig=24 day
Δps=11 day
Δig=24 day
Δps=4 day
Δig=24 day
Δps=11 day
Δig=24 day
Δps=4 day
Heading
LOS
Azimuth
m
1.0
0.5
0.0
−0.5
−1.0
85°E
86°E
29°N
28°N
27°N

Figure S3a

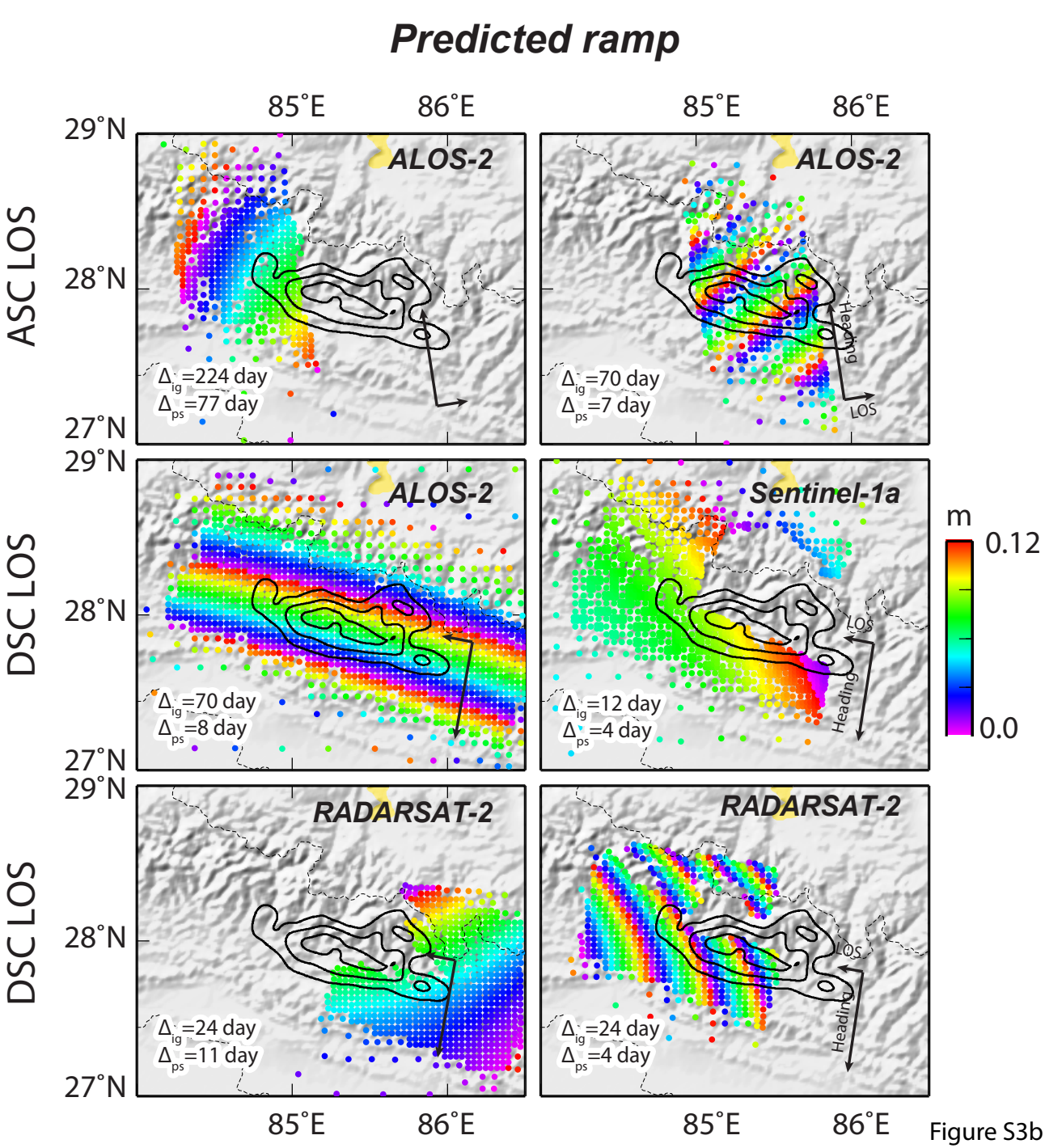
Predicted ramp
ASC LOS
DSC LOS
DSC LOS
ALOS-2
ALOS-2
ALOS-2
Sentinel-1a
RADARSAT-2
RADARSAT-2
Δig =224 day
Δps =77 day
Δig =70 day
Δps =7 day
Δig =70 day
Δps =8 day
Δig =12 day
Δps =4 day
Δig =24 day
Δps =11 day
Δig =24 day
Δps =4 day
Heading
LOS
m
0.12
0.0
85˚E
86˚E
29˚N
28˚N
27˚N

Figure S3b

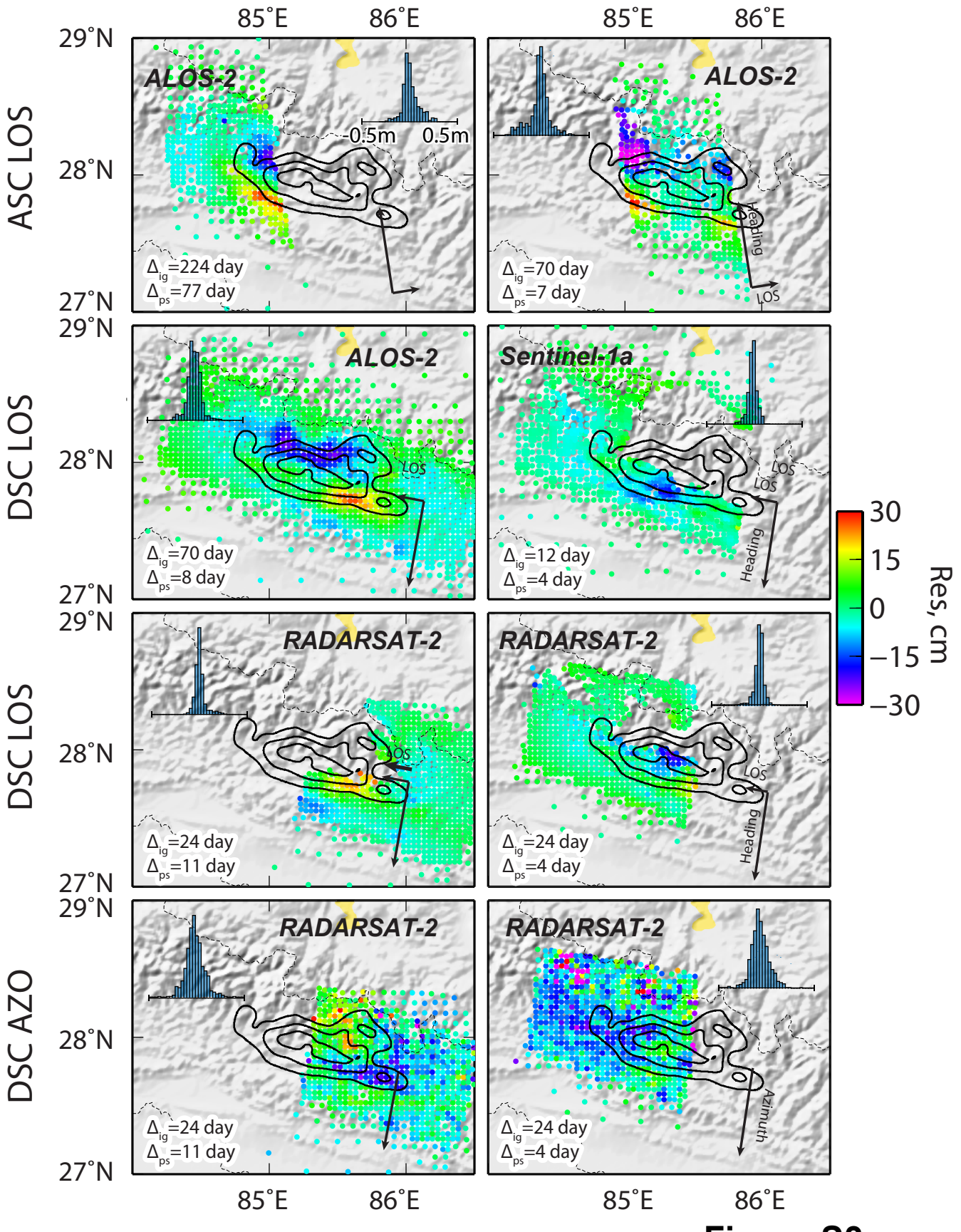
Residual Displacement of MTW
85°E
86°E
29°N
28°N
27°N
ASC LOS
DSC LOS
DSC LOS
DSC AZO
ALOS-2
0.5m
0.5m
Δig=224 day
Δps=77 day
ALOS-2
Δig=70 day
Δps=7 day
Heading
LOS
ALOS-2
Δig=70 day
Δps=8 day
Sentinel-1a
Δig=12 day
Δps=4 day
RADARSAT-2
Δig=24 day
Δps=11 day
RADARSAT-2
Δig=24 day
Δps=4 day
RADARSAT-2
Δig=24 day
Δps=11 day
RADARSAT-2
Δig=24 day
Δps=4 day
Azimuth
30
15
0
−15
−30
Res, cm

Figure S3c

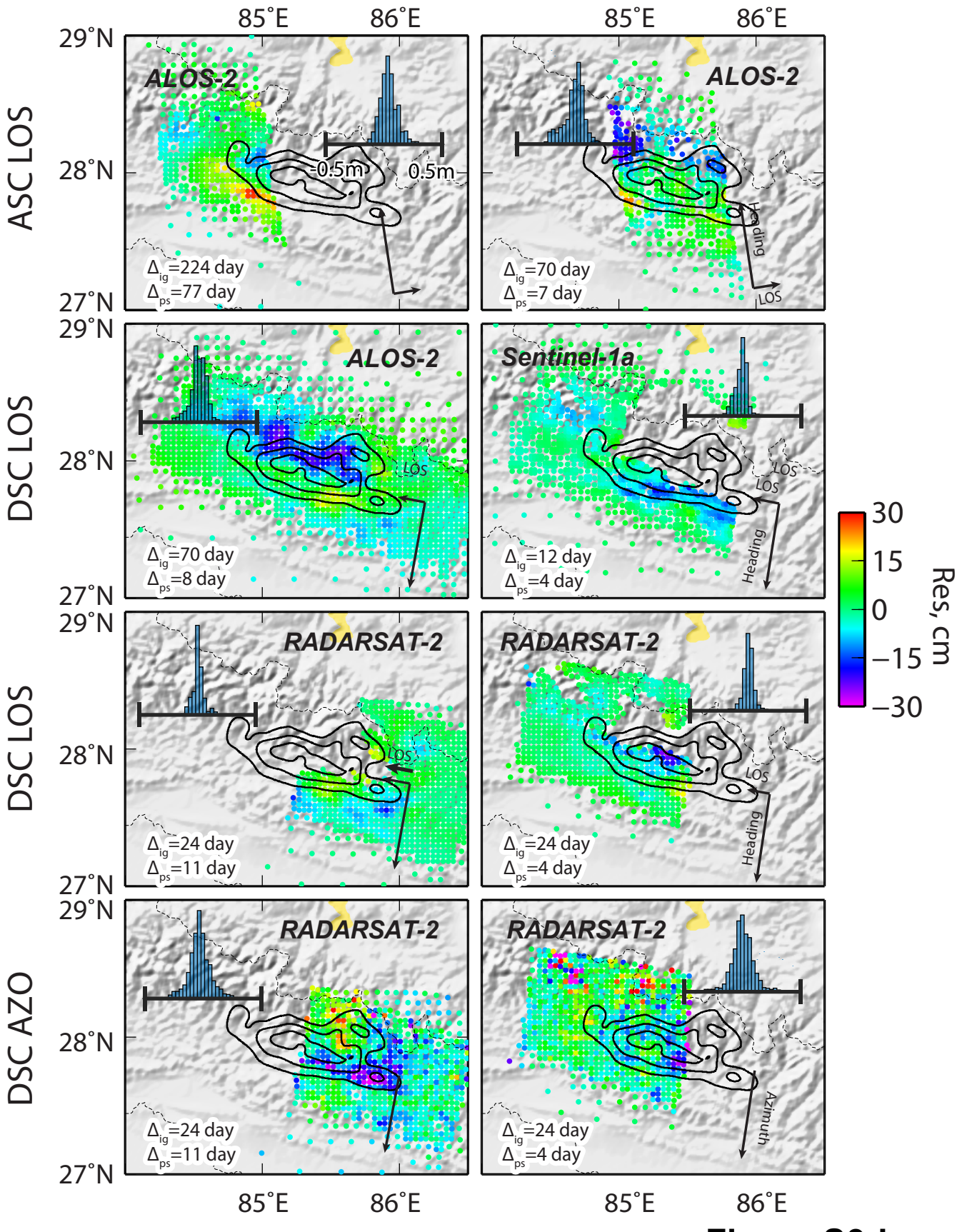
Residual Displacement of Bayesian Inv
85°E
86°E
29°N
28°N
27°N
ASC LOS
DSC LOS
DSC LOS
DSC AZO
ALOS-2
-0.5m
0.5m
Δig=224 day
Δps=77 day
ALOS-2
Heading
LOS
Δig=70 day
Δps=7 day
ALOS-2
LOS
Δig=70 day
Δps=8 day
Sentinel-1a
LOS
LOS
Heading
Δig=12 day
Δps=4 day
RADARSAT-2
LOS
Δig=24 day
Δps=11 day
RADARSAT-2
LOS
Heading
Δig=24 day
Δps=4 day
RADARSAT-2
Δig=24 day
Δps=11 day
RADARSAT-2
Azimuth
Δig=24 day
Δps=4 day
30
15
0
−15
−30
Res, cm

Figure S3d

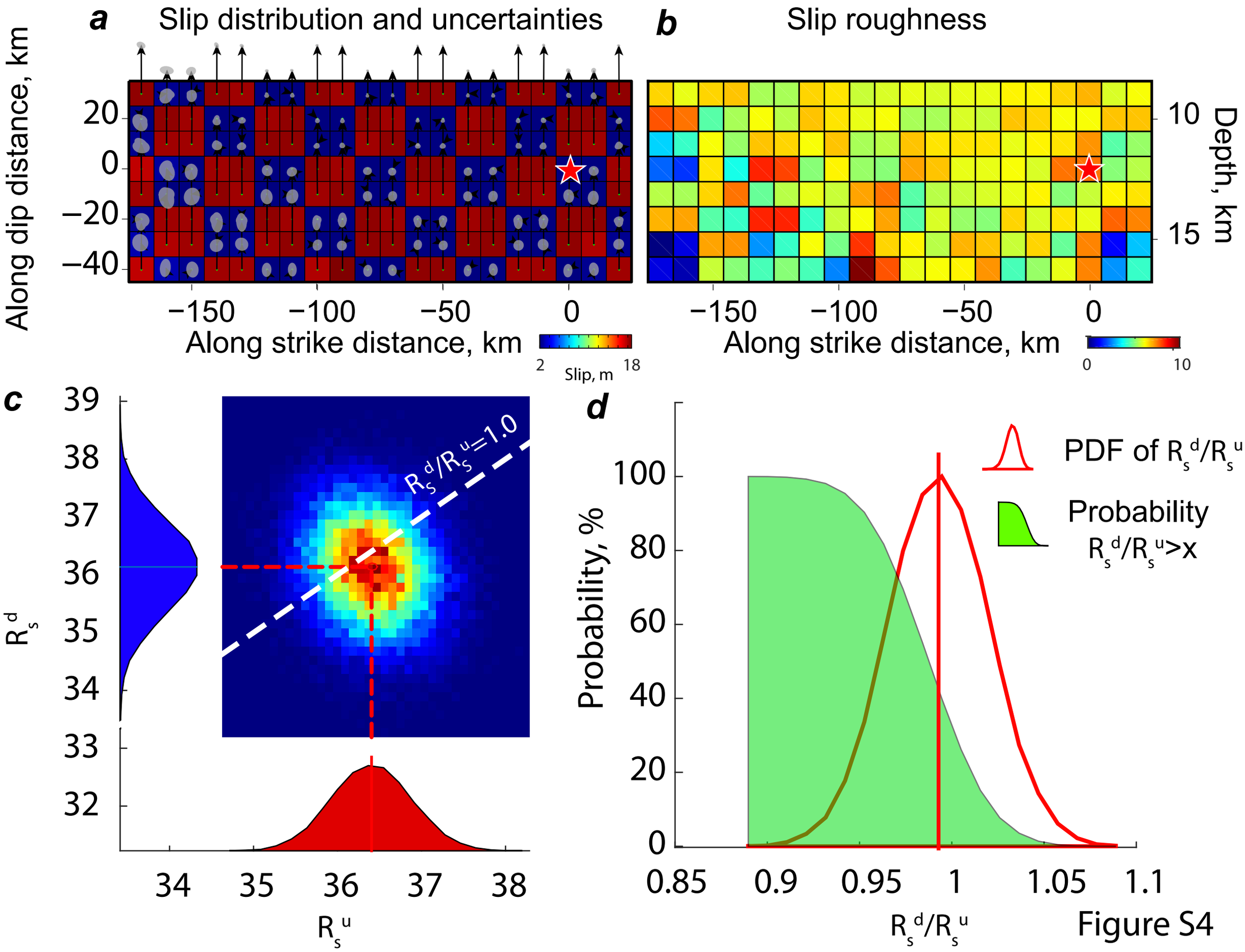
a
Slip distribution and uncertainties
b
Slip roughness
Along dip distance, km
20
0
−20
−40
−150
−100
−50
0
Along strike distance, km
2
Slip, m
18
10
15
Depth, km
Along strike distance, km
0
10
c
39
38
37
36
35
34
33
32
R_s^d
$R_s^d/R_s^u=1.0$
34
35
36
37
38
R_s^u
d
PDF of R_s^d/R_s^u
Probability
$R_s^d/R_s^u>x$
Probability, %
100
80
60
40
20
0
0.85
0.9
0.95
1
1.05
1.1
R_s^d/R_s^u

Figure S4