

## Supplementary Material

### 1 Contents of this file

Figures S1, S2, S3, S4, and S5. Tables S1, S2, and S3. An introductory text is provided.

The catalog of the earthquakes used in this study is provided as a separate file named Table\_S4\_Catalog.csv.

### 2 Introduction

We describe aspects of the time variability of the seismic attenuation parameter,  $Q_S^{-1}(f, t)$ , in the region struck by the 2016-2017 Amatrice-Visso-Norcia-Capitignano seismic sequence (Central Apennines, Italy), in the time window between January 2013 and August 2020. With respect to the main text, here we limit our time window because the present analysis is about events of larger minimum magnitude with respect to those used in the main text (a minimum magnitude  $M_L$  2 was used here, vs. a minimum magnitude  $M_L$  1.1 used in the main text). The massive increment of the number of earthquakes used in the main text would have prevented our capability to run the trade-off analysis presented here, and also the robustness test performed after randomly perturbing the events' locations. The validity of the support to our results remains unaffected.

As it is described in details in the main text,  $Q_S^{-1}(f, t)$  is obtained by correcting the total attenuation (see Figure 4a of the main text) for the effect of the geometric attenuation that was quantified by Malagnini et al. (2011, their eq. (3)).

In our study we consider two physical parameters, rock permeability and anelastic attenuation of seismic waves, to be somehow equivalent; our statement is based on the following evidence/interpretation:

1. Increased attenuation has been observed at Parkfield following strong motion (see Kelly et al., 2013; Malagnini et al., 2019; Malagnini and Parsons, 2020).
2. Increased  $Q_S^{-1}(f, t)$  has been observed after weak shaking from large distant earthquakes (see Malagnini et al., 2019, and Malagnini and Parsons, 2020). Moreover, permeability variations induced by weak shaking in natural environments are described by Brodsky et al. (2003), Manga et al. (2012), Manga and Brodsky (2006), and Parsons et al. (2017). The same phenomenon is also observed in laboratory experiments (Liu and Manga, 2009). We interpret weak-motion shaking-induced increases in  $Q_S^{-1}(f, t)$  in terms of increased permeability, due to the removal of colloidal deposits by cyclic flow-induced shear stresses acting on the internal surfaces of cracks.
3. Decreased  $Q_S^{-1}(f, t)$  has sometimes been observed after weak shaking, generally from teleseismic earthquakes (Malagnini et al., 2019). We interpret the decreased attenuation in terms of a reduction of permeability due to re-deposition of mobilized colloidal particles in adjacent rock volumes bounded by impermeable surfaces (i.e., a fault zone, see *in situ* results from Malagnini and Parsons (2020) and laboratory results by Liu and Manga (2009));
4. Cyclic variations of  $Q_S^{-1}(f, t)$  have been observed at seasonal as well as at multiple tidal periods, plausibly due to pressure-induced variations in crack density (Malagnini et al., 2019). In order to link the observed time variations of  $Q_S^{-1}(f, t)$  to rock permeability, we can use a result obtained by Silverii et al. (2018), who noticed that the vertical and the horizontal deformations in the Apennines are out of phase: whereas the first represents the (instantaneous) elastic response to the load/unload seasonal cycle (maximum load is obtained

in summer, minimum load in winter), the second is the result of the increased pore pressure at depth, which is delayed by the time needed for fluids to percolate through the crust in the aquifers (maximum pore-fluid pressure at depth is reached in summer), and to be discharged (minimum pore-fluid pressure at depth is reached in winter).

If hydrostatic pressure at depth in the Apennines peaks in summer, it corresponds to the opening of vertical crustal cracks. In turn, the latter corresponds to increased permeability and fluid mobility. On the contrary, permeability decreases correspond to decreases of hydrostatic pore-fluid pressure, and to closing of vertical crustal cracks that occur in winter (Silverii et al., 2018). The correspondence of higher attenuation in summer and lower attenuation in winter can be seen in Figures 5a-d. Similar seasonal fluctuations were observed along the San Andreas fault at Parkfield by Malagnini et al. (2019).

5. Progressive increase of  $Q_s^{-1}(f, t)$  has been observed before the **M6** 2004 Parkfield main shock on the Pacific side of the SAF (in extension); opposite, progressive decrease of  $Q_s^{-1}(f, t)$  has been observed, before the Parkfield main shock, on the North American side of the SAF (in compression, Malagnini et al., 2019).
6. Malagnini et al. (2019) demonstrated that variations of  $Q_s^{-1}(f, t)$  on the SAF are inversely correlated to variations of normal stress on the fault. In fact, an instantaneous increase of  $Q_s^{-1}(f, t)$  was observed on the Pacific side of the SAF at the time of the **M6.5** San Simeon event, due to increased Coulomb stress on the SAF at Parkfield. An opposite, instantaneous decrease of  $Q_s^{-1}(f, t)$  was observed on the North American side of the SAF. Johanson and Bürgmann (2010) quantified the unclamping induced by the San Simeon earthquake on the SAF, which caused the anomalies in the attenuation parameter.

*Physical mechanism of crustal anelastic attenuation:*

O'Connell and Budiansky (1977) developed a theoretical model that linked together some physical parameters:

- 1) (bulk) crack density;
- 2) fluid saturation;
- 3) fluid viscosity (that is, relaxation times in viscous behavior);
- 4) fluid compressibility;
- 5) (bulk) rock porosity;
- 6) pore (rock) compressibility.

The theoretical model describes two mechanisms of elastic energy dissipation:

- 1) viscous relaxation of fluids within the same crack;
- 2) viscous relaxation through fluid flow between cracks.

Three regimes are allowed:

- 1) saturated isolated;
- 2) saturated drained;
- 3) glued.

Bulk rock permeability plays a fundamental role in the model. Specifically, the higher the permeability, the higher the fluid mobility, and thus the fraction of the elastic energy that can be dissipated via the two mechanisms listed above. Depending on the frequency of oscillation, either one of the three regimes listed above is allowed. At transitional frequencies that separate two adjacent regimes, peaks in  $Q^{-1}(f)$  are expected.

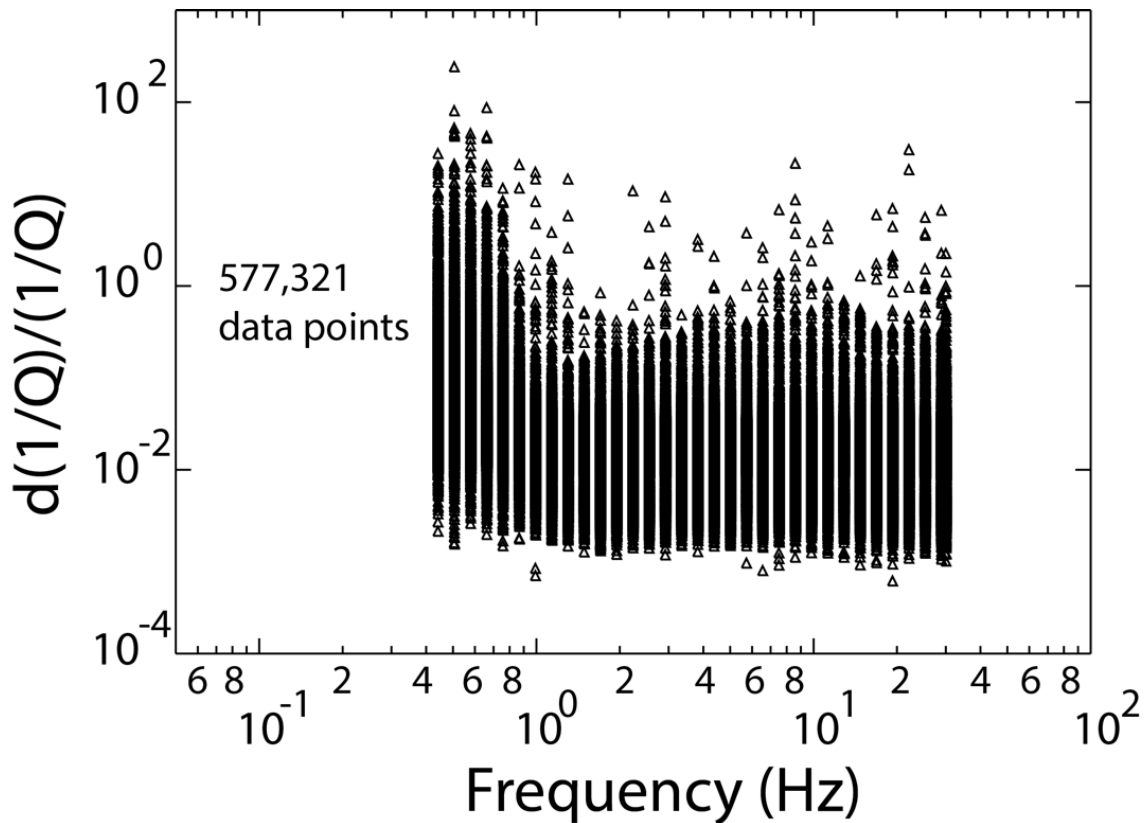
### 3 Supplementary Figures:

List of Figures:

1. Error plot (Figure S1);
2. Trade-off analysis (Figure S2);
3. Plot of the attenuation parameter computed using the total attenuation at a hypocentral distance of 80 km (Figure S3), which allows a direct comparison with the results of Figure 5 of the main text, where the hypocentral distance used was 40 km;
4. Robustness analysis (Figure S4);
5. Plot showing the negative correlation existing between seismic attenuation and instantaneous release of seismic moment (Figure S5).

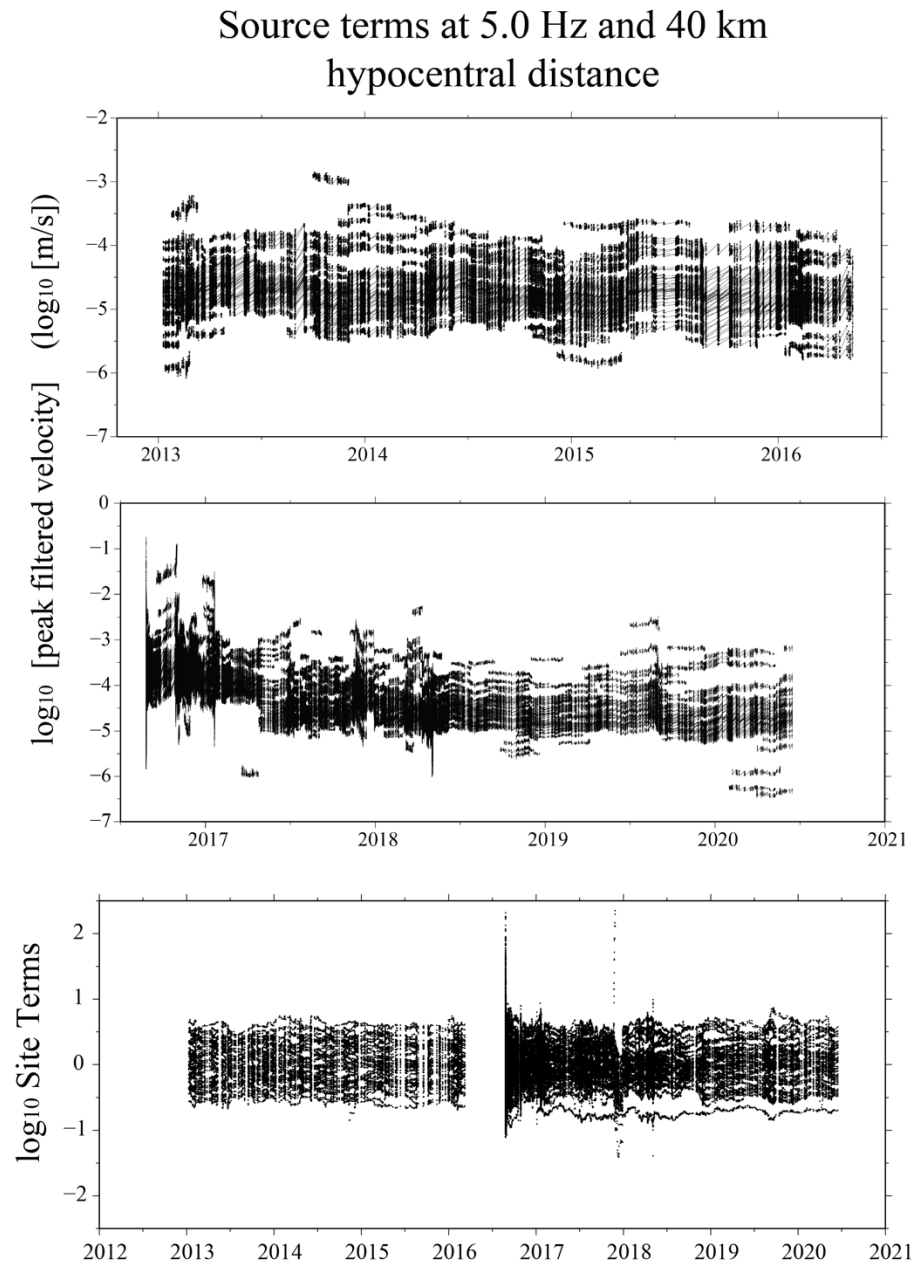
#### 3.1 Detailed contents:

##### 3.1.1 Error plot



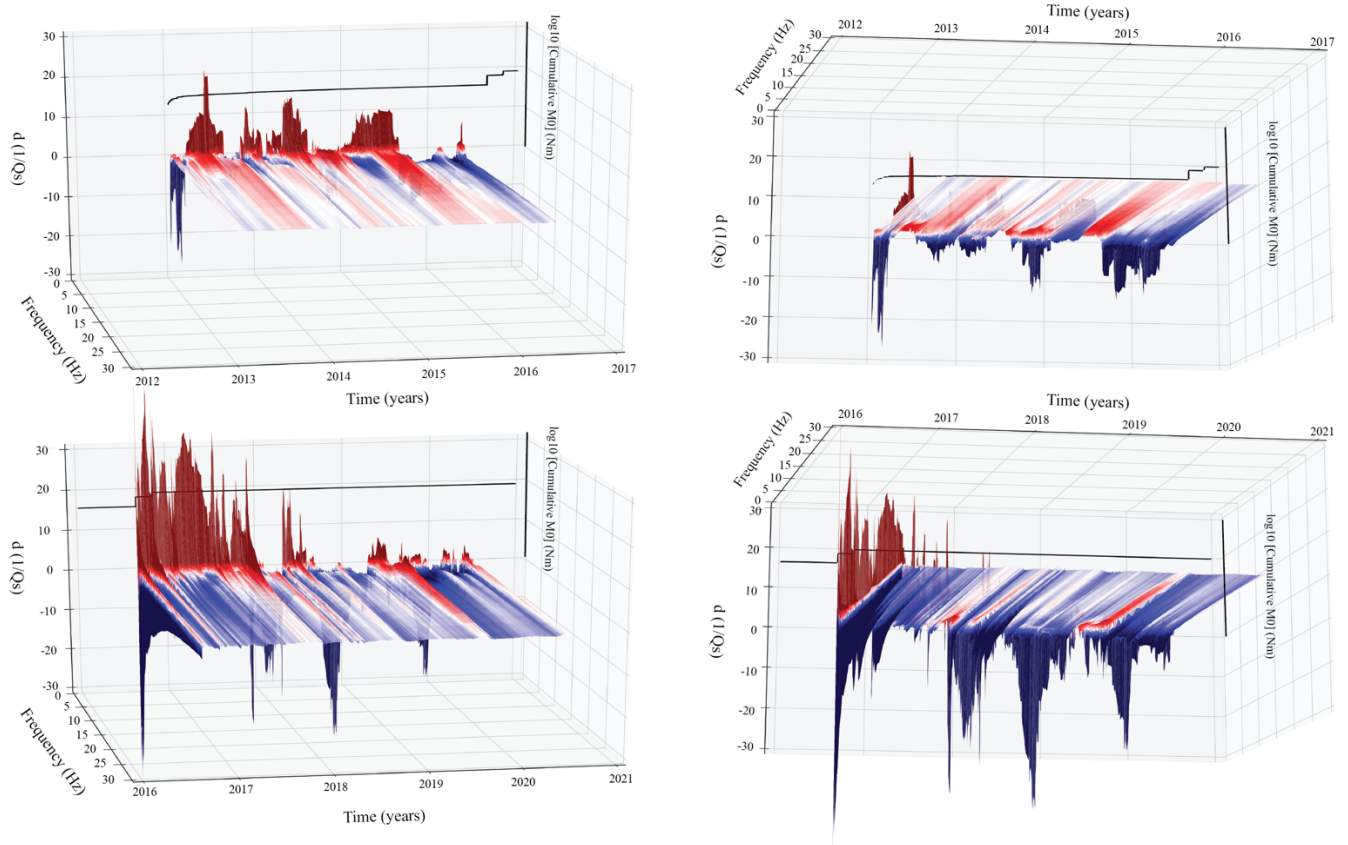
**Figure S1.** Errors with respect to the average ( $d(\log(1/Q))$ ) calculated in the regressions all time windows and for all frequencies. The Figure contains 577,321 data points, between 0.4 and 30 Hz.

## 3.1.2 Trade-offs analysis



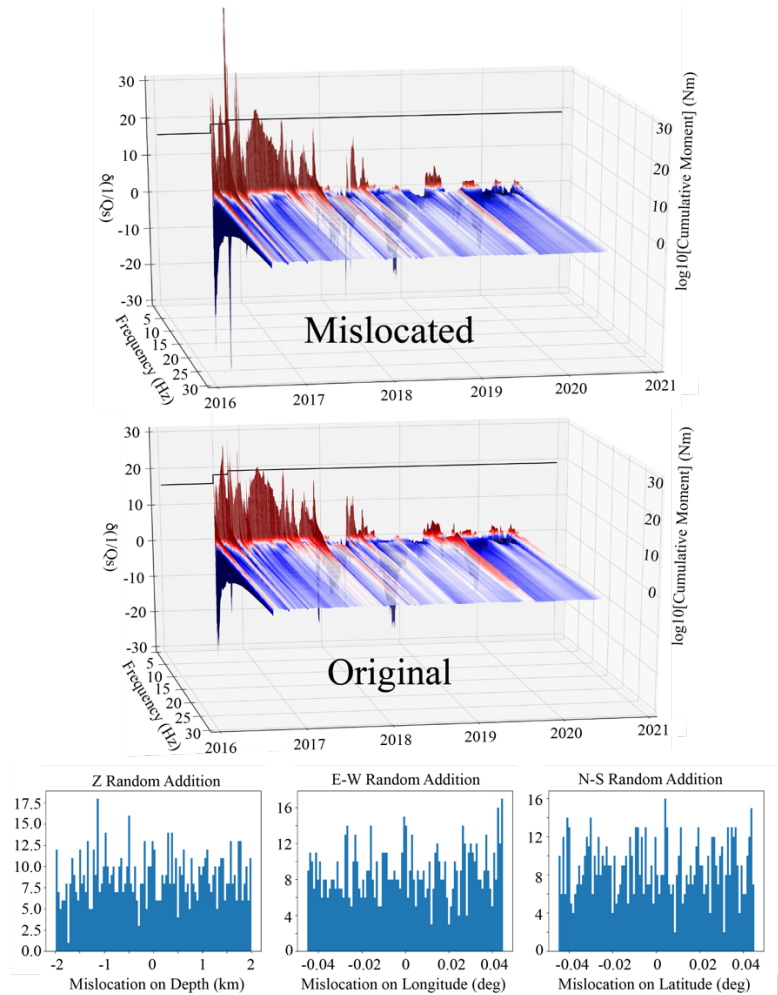
**Figure S2.** Individual source (we track only the  $M_L \geq 2$  events, due to memory issues) and site terms plotted as a function of time, during the 2013-2020 time window, at the central frequency of 5 Hz. Upper and middle plots: individual source terms (individual sets of points linked together by a line), for the pre- and post-Amatrice time windows, respectively. Note the sharp decrease in the source amplitudes starting in late spring 2017, due to the fact the most energetic part of the seismic sequence was over, and smaller magnitudes were needed in order to have a decent time resolution. Bottom plot: similarly to the upper and the middle plots, but the site terms are shown in a single frame for the entire time window under investigation.

### 3.1.3 Seismic attenuation at 80 km hypocentral distance



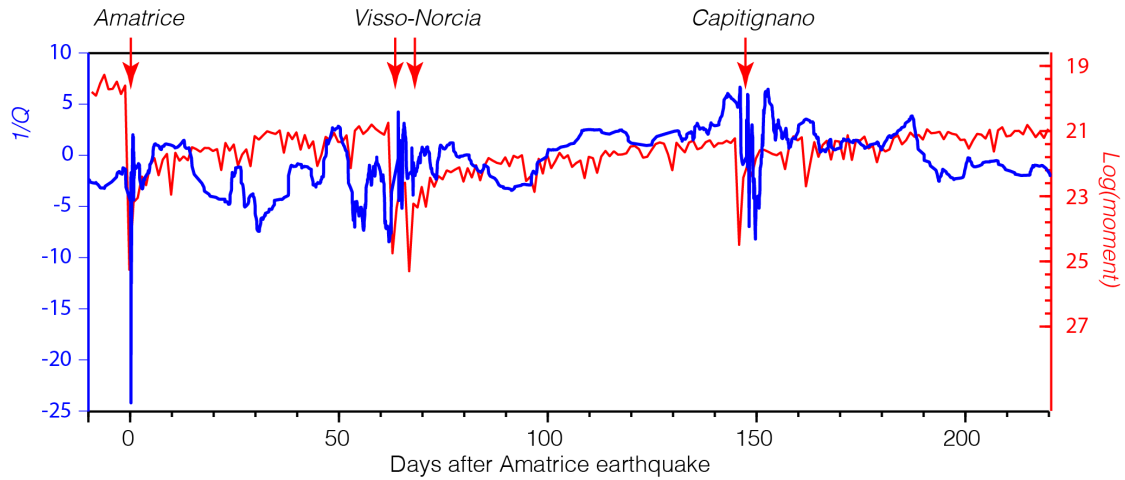
**Figure S3.** Attenuation parameter calculated using the total attenuation term between the hypocentral distance of 15 and 80 km (due to limitations of computational time, these regressions were performed only on events with  $M_L \geq 2$ , in the time window 2013-2020, and with a broader range of hypocentral distances than the one used in the main text: 0-100 km instead of 0-42 km). No differences can be appreciated with the same 15-40 km computation.

### 3.1.4 Robustness analysis



**Figure S4.** Robustness analysis applied to the results obtained for the time window 01/01/2013 - 30/06/2017, about the temporal variations of the anelastic attenuation parameter  $[Q_s(t, f)]^{-1}$  (see Figure 5 of the main text). Due to limitations of computational time, these regressions were performed only on events with  $M_L \geq 2$ , in the time window 2013-2020, and with a broader range of hypocentral distances than the one used in the main text: 0-100 km instead of 0-42 km. We do it by perturbing the hypocentral localizations with random offsets distributed with constant probability within  $\pm 5$  km in latitude and longitude and  $\pm 2$  km in depth, as indicated in this Figure. Regression results, shown here, demonstrate the extreme robustness of the Malagnini and Parsons's method (2020), when applied to the 2016-2017 Central Apennines' seismic sequence. We note that the salient features of the parameter  $[Q_s(t, f)]^{-1}$  are present in both plots, although the procedure of artificial degradation of the hypocentral locations reduced some of the character of the 3D surface topography. **Top:** results of the same set of regressions calculated on the mislocated data set; **Middle** results obtained on the original one data set. No appreciable differences can be seen between the two plots; **Bottom:** Distributions of the random offsets that were applied to mislocate the events.

### 3.1.5 Inverse correlation



**Figure S5.**  $Q_S^{-1}(t, f = 2 \text{ Hz})$  (blue) is negatively correlated with the instantaneous moment release during the seismic sequence (in red, the function shown in Figure 13 of the main text, multiplied by -1). From this comparison it is very clear that the broad troughs in the blue line do not have counterparts in the instantaneous moment release. The question mark on the dashed segment of the  $1/Q$  curve indicates the lack of information about what happens to the attenuation parameter right before the Amatrice earthquake.

## 4 Supplementary Tables

### 4.1 Table S1. Stations used in this study:

Station name	Latitude	Longitude	Altitude over sea level (m)	Instrument
AQU	42.3540	13.4050	710	GEOTECH S-13
ASSB	43.0426	12.6587	734	NANOMETRICS TRILLIUM-40S
CAMP	42.5358	13.409	1283	NANOMETRICS TRILLIUM-120S
CESI	43.0049	12.9046	840	NANOMETRICS TRILLIUM-40S

CESX	42.6085	12.5868	380	NANOMETRICS TRILLIUM-240S
CING	43.3758	13.1954	626	NANOMETRICS TRILLIUM-40S
FAGN	42.2657	13.5838	761	NANOMETRICS TRILLIUM-40S
FDMO	43.0365	13.0873	550	NANOMETRICS TRILLIUM-240S
FIAM	42.2680	13.1172	1070	NANOMETRICS TRILLIUM-40S
GIGS	42.4532	13.5728	960	NANOMETRICS TRILLIUM-240S
GUMA	43.0627	13.3352	574	NANOMETRICS TRILLIUM-120S
LNSS	42.6029	13.0403	1155	NANOMETRICS TRILLIUM-40S
MOMA	42.8039	12.5701	1040	NANOMETRICS TRILLIUM-40S
MURB	43.2630	12.5246	845	NANOMETRICS TRILLIUM-40S
NRCA	42.8335	13.1143	927	NANOMETRICS TRILLIUM-40S
OFFI	42.9350	13.6857	320	NANOMETRICS TRILLIUM-40S
SNTG	43.2550	12.9406	650	NANOMETRICS TRILLIUM-120S
SRES	42.2370	12.5099	410	NANOMETRICS TRILLIUM-240S
T0104	42.3599	13.3382	754	NANOMETRICS TRILLIUM-120C
TERO	42.6228	13.6039	673	NANOMETRICS TRILLIUM-40S
TRTR	42.8081	13.9138	160	NANOMETRICS TRILLIUM-40S

**4.2 Table S2.** Moment tensor solution parameters for the earthquakes used in this study to compute cumulative stress changes.



Origin Time	Latitude	Longitude	Depth	M	Azimuth	Dip	Rake	Fit
2016.647724	42.71	13.22	5	5.97	155	50	-85	0.718
2016.647761	42.61	13.28	5	4.46	115	57	-123	0.6013
2016.647832	42.79	13.15	5	5.29	136	46	-100	0.6889
2016.647882	42.8	13.14	5	3.93	331	57	-103	0.5912
2016.647898	42.61	13.27	7	3.7	332	61	-84	0.4871
2016.647959	42.62	13.24	6	4.12	330	60	-90	0.6554
2016.648009	42.77	13.12	3	4.32	340	50	-90	0.5354
2016.648889	42.82	13.15	7	4.5	335	65	-75	0.5542
2016.649139	42.8	13.25	3	3.77	220	65	-40	0.6158
2016.649564	42.66	13.22	7	4.19	339	55	-93	0.542
2016.649859	42.78	13.15	5	3.31	317	63	-121	0.6416
2016.650018	42.8	13.17	6	3.04	348	50	-94	0.5681
2016.650201	42.65	13.21	9	3.98	327	56	-100	0.5551
2016.650648	42.75	13.21	5	4.36	339	72	-99	0.5832
2016.650752	42.69	13.23	7	3.27	337	50	-113	0.3077
2016.650827	42.62	13.33	2	3.75	138	61	-98	0.4632
2016.651297	42.61	13.3	3	3.08	320	55	-90	0.5281
2016.651681	42.61	13.25	7	3.17	324	65	-95	0.5033
2016.651708	42.6	13.29	5	4.39	125	55	-120	0.5833
2016.652514	42.59	13.29	5	3.45	122	54	-127	0.5789
2016.653013	42.67	13.29	3	3.61	155	55	-90	0.5475

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2016.653476	42.7	13.23	7	3.17	180	55	-55	0.6126
2016.653501	42.62	13.29	5	3.13	138	48	-109	0.5618
2016.653515	42.6	13.29	5	4.72	127	50	-113	0.606
2016.653592	42.62	13.3	5	3.23	339	55	-93	0.5886
2016.653607	42.75	13.21	7	3.21	120	70	90	0.6211
2016.653637	42.77	13.15	5	3.36	347	71	-107	0.5564
2016.653672	42.57	13.29	7	2.87	335	55	-80	0.4884
2016.654271	42.61	13.3	5	2.83	128	51	-124	0.4744
2016.654744	42.6	13.29	5	2.97	330	60	-75	0.613
2016.654837	42.69	13.15	7	3.49	323	61	-96	0.7015
2016.655376	42.79	13.15	5	3.07	355	65	-70	0.6052
2016.65565	42.84	13.26	2	3.13	170	55	-60	0.5379
2016.655902	42.84	13.24	2	3.75	175	50	-65	0.5935
2016.656062	42.84	13.25	2	3.91	175	55	-60	0.5068
2016.656081	42.84	13.25	3	2.9	165	65	-55	0.4873
2016.656437	42.84	13.24	2	3.46	175	65	-60	0.5272
2016.65646	42.55	13.31	3	3.28	330	50	-70	0.5776
2016.656618	42.77	13.23	4	2.72	165	85	50	0.583
2016.656841	42.79	13.18	5	3.06	121	52	-102	0.5318
2016.656952	42.84	13.25	2	3.53	175	65	-60	0.5203
2016.658189	42.59	13.26	7	3.4	130	53	-106	0.6249

2016.659071	42.6	13.31	5	3.14	144	47	-105	0.6194
2016.659224	42.72	13.21	7	3.31	329	54	-110	0.6808
2016.65938	42.8	13.23	5	3.17	124	66	-97	0.533
2016.659529	42.63	13.29	5	3.24	140	55	-85	0.6666
2016.659657	42.78	13.11	10	2.93	283	57	-130	0.5339
2016.659964	42.59	13.29	5	3.57	159	71	-95	0.6266
2016.660249	42.77	13.12	9	3.48	155	50	-95	0.662
2016.660283	42.82	13.24	5	4.15	206	60	-87	0.5723
2016.660371	42.82	13.14	5	3.78	340	55	-85	0.6029
2016.66079	42.74	13.2	5	3.08	324	47	-105	0.5382
2016.6614	42.76	13.2	7	3.42	345	50	-70	0.5562
2016.661924	42.75	13.19	6	3.57	131	46	-100	0.4675
2016.662738	42.73	13.14	4	2.81	312	75	138	0.445
2016.663107	42.83	13.15	6	2.85	119	77	128	0.6487
2016.663237	42.86	13.22	4	3.15	5	80	20	0.5859
2016.664003	42.8	13.14	6	3.33	340	55	-65	0.5463
2016.665539	42.73	13.19	8	2.87	353	73	-100	0.5854
2016.66646	42.82	13.26	3	2.96	338	61	-132	0.6414
2016.66686	42.81	13.16	7	3.08	50	89	-105	0.6584
2016.667779	42.76	13.18	6	3.18	132	56	-100	0.5255
2016.667968	42.84	13.14	5	3.95	340	60	-85	0.626
2016.668019	42.87	13.24	4	3.42	277	81	160	0.6667

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2016.66819	42.76	13.24	8	3.31	165	75	-55	0.6962
2016.66874	42.83	13.26	5	3.52	321	79	-134	0.5765
2016.668959	42.83	13.13	5	3.38	345	60	-80	0.7125
2016.669139	42.78	13.16	5	3.42	344	65	-92	0.6202
2016.669198	42.75	13.24	5	3.44	310	45	-90	0.6394
2016.669619	42.85	13.18	11	2.9	297	61	-118	0.461
2016.669841	42.62	13.31	5	3.62	145	60	-80	0.5498
2016.670176	42.86	13.23	5	3.11	135	50	-90	0.4693
2016.6705	42.81	13.24	3	3.03	315	70	-142	0.5683
2016.670656	42.81	13.17	7	3.12	220	80	15	0.4686
2016.670719	42.56	13.3	6	3.34	301	69	-112	0.7037
2016.673883	42.75	13.14	2	2.79	15	50	-65	0.4863
2016.67407	44.5	9.6	3	3.08	257	76	-111	0.7026
2016.675042	42.77	13.13	2	4.16	338	61	-98	0.5323
2016.675241	42.81	13.2	3	2.87	158	74	-102	0.4533
2016.675919	42.93	13.26	4	2.91	170	80	-65	0.4087
2016.676038	42.87	13.21	4	4.29	284	85	170	0.579
2016.676621	42.87	13.22	4	3.09	10	70	25	0.5971
2016.676746	42.86	13.22	2	2.98	115	67	-136	0.5672
2016.677055	43.98	7.52	9	3.31	292	81	160	0.4772
2016.678225	42.85	13.23	2	2.79	312	63	-121	0.5355

2016.680826	42.85	13.21	4	3.34	287	81	160	0.5707
2016.682015	42.63	13.31	7	2.83	339	65	-95	0.4605
2016.682604	42.85	13.24	2	3.13	320	60	-109	0.6254
2016.682787	42.65	13.34	6	3.54	140	55	-80	0.5464
2016.682927	42.83	13	7	2.84	180	65	30	0.58
2016.683095	42.66	13.34	5	3.17	126	46	-100	0.4427
2016.684192	42.76	13.19	6	3.07	335	55	-85	0.5026
2016.685437	42.86	13.22	2	3.15	321	73	-115	0.6806
2016.6858	42.73	13.19	9	3.11	307	54	-127	0.6077
2016.686378	42.8	13.2	6	3.18	215	60	-60	0.6248
2016.687461	42.67	13.3	9	2.97	355	70	-90	0.6657
2016.687867	42.8	13.24	1	3.3	133	45	-95	0.5438
2016.689257	42.95	13.16	1	2.97	144	47	-105	0.4972
2016.694273	42.84	13.26	3	2.89	195	55	-55	0.6989
2016.695628	42.96	13.16	1	2.96	160	60	-75	0.5931
2016.695924	42.79	13.23	3	3.2	150	55	-80	0.5185
2016.698845	42.68	13.28	4	3.24	150	50	-85	0.6184
2016.699702	42.8	13.22	2	2.99	314	47	-105	0.3992
2016.703446	42.58	13.2	15	3.34	150	70	-40	0.5135
2016.706752	42.86	13.26	2	2.93	280	74	-127	0.6262
2016.709228	42.78	13.13	2	2.91	330	60	-85	0.4169
2016.709322	42.78	13.13	2	3.72	358	61	-96	0.5827

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2016.709327	42.78	13.13	2	3.5	2	56	-100	0.5328
2016.709328	42.78	13.14	1	3.26	345	55	-90	0.4797
2016.70957	42.75	13.14	1	2.79	350	50	-95	0.4895
2016.709639	42.76	13.09	7	3.07	43	76	-104	0.7126
2016.713979	42.84	13.23	5	3.21	300	59	-106	0.5393
2016.716066	42.68	13.29	4	3.12	325	80	-50	0.4641
2016.716287	42.82	13.25	2	2.99	312	71	-137	0.6695
2016.71776	39.04	16.45	17	3.29	68	69	-103	0.6455
2016.720495	42.68	13.29	4	2.88	315	75	-60	0.6619
2016.721263	42.67	13.28	4	3.67	325	65	-55	0.6215
2016.721465	42.68	13.29	4	3.2	145	90	70	0.6742
2016.72171	42.81	13.15	6	2.92	300	75	-70	0.6803
2016.721711	42.81	13.15	6	2.92	310	90	-70	0.6237
2016.724855	42.8	13.15	5	3.38	175	90	80	0.6115
2016.727676	42.78	13.13	2	2.79	320	75	-85	0.4721
2016.72906	42.76	13.19	5	3.48	335	60	-80	0.5977
2016.75084	42.9	13.25	5	3.4	175	60	-75	0.5962
2016.75087	42.9	13.24	5	3.54	175	60	-70	0.5577
2016.756806	42.79	13.23	2	3.24	140	55	-80	0.4678
2016.761008	42.86	13.12	5	3.45	107	54	-127	0.5852
2016.763717	42.64	13.22	7	3.14	328	61	-98	0.4933

2016.766867	42.88	13.14	5	2.83	149	66	-97	0.409
2016.768644	42.9	13.25	5	3.23	160	65	-75	0.5193
2016.771431	42.78	13.2	6	2.9	90	65	-55	0.5541
2016.771894	42.75	13.18	3	3.58	148	45	-95	0.5903
2016.771936	42.75	13.19	4	3.12	328	45	-95	0.6166
2016.772562	42.74	13.19	3	3.91	331	46	-100	0.6154
2016.773542	42.74	13.2	3	3.06	165	70	-85	0.484
2016.77376	42.74	13.2	3	3.5	160	60	-85	0.5292
2016.779548	42.86	13.25	1	2.8	295	53	-106	0.5681
2016.781125	42.87	13.07	5	3.14	325	55	-70	0.5479
2016.787358	42.63	13.33	5	3.29	332	51	-98	0.5214
2016.78979	42.89	13.26	3	3.12	145	60	-55	0.4827
2016.793239	42.75	13.18	3	3.04	180	60	-70	0.5584
2016.793436	42.75	13.18	3	3.95	341	46	-100	0.5631
2016.793997	42.85	13.15	5	3.23	355	70	-85	0.61
2016.803297	40.76	15.65	16	3.49	150	89	100	0.6155
2016.812421	43.19	11.05	9	3.53	37	78	112	0.5596
2016.816335	43.38	12.55	1	2.92	145	60	-80	0.5498
2016.818862	43.6	10.99	8	3.94	82	85	-155	0.5534
2016.821628	42.88	13.13	5	5.3	334	60	-93	0.6813
2016.821796	42.88	13.09	6	3.3	339	66	-97	0.6248
2016.821836	42.91	13.12	5	3.33	324	47	-105	0.5687

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2016.821846	42.89	13.13	5	3.04	350	60	-75	0.5799
2016.821869	42.91	13.13	5	5.87	162	45	-85	0.7812
2016.821918	42.89	13.07	6	3.87	175	75	55	0.5594
2016.82211	42.87	13.08	5	3.73	329	66	-97	0.6341
2016.822126	42.82	13.26	4	3	134	79	134	0.4694
2016.822143	42.86	13.13	5	4.48	330	60	-90	0.5119
2016.822163	42.86	13.21	4	3.31	163	78	-112	0.4358
2016.822198	42.93	13.16	2	3.14	137	84	125	0.4712
2016.822208	42.87	13.12	5	3.19	6	60	-87	0.4997
2016.82239	42.84	13.17	3	3.44	150	60	-70	0.5058
2016.82243	42.84	13.17	2	3.03	355	60	-45	0.4473
2016.822445	42.99	13.12	2	3.26	146	55	-87	0.4843
2016.822517	42.89	13.06	7	3.17	310	55	-120	0.517
2016.822783	42.84	13.15	5	3.96	339	60	-93	0.5858
2016.822842	42.99	13.13	3	4.1	350	70	-80	0.5355
2016.823224	42.87	13.13	3	3.22	341	73	-115	0.4982
2016.823356	42.87	13.1	5	4.32	348	61	-96	0.5886
2016.823388	42.96	13.15	1	3.01	160	80	-45	0.5675
2016.823807	43.02	13.13	1	3.28	135	59	-106	0.5085
2016.823826	43.02	13.14	1	3.05	128	66	-123	0.4738
2016.824015	42.79	13.16	5	3.22	353	61	-96	0.5913



2016.824254	42.95	13.07	7	3.13	324	66	-116	0.4622
2016.824382	42.84	13.1	5	4.26	355	70	-92	0.6201
2016.824385	42.85	13.11	5	3.85	355	65	-90	0.6201
2016.824392	43.01	13.12	2	3.3	350	50	-65	0.6004
2016.825091	42.87	13.15	3	3.07	287	62	-139	0.5968
2016.825288	42.82	13.12	5	3.24	336	57	-103	0.5715
2016.825355	42.99	13.14	2	3.23	140	55	-90	0.6211
2016.82539	43.03	13.12	2	3.29	121	64	-146	0.5914
2016.825429	42.99	13.15	2	3.22	130	53	-106	0.4422
2016.825479	43	13.14	2	3.15	145	50	-85	0.5965
2016.825575	42.86	13.04	8	3.18	310	67	-136	0.5435
2016.825772	42.89	13.18	2	3.06	330	50	-80	0.4886
2016.826068	42.96	13.14	3	3.04	106	66	-129	0.4382
2016.826184	42.92	13.11	5	3.29	335	55	-60	0.6564
2016.826724	42.87	13.21	1	3.35	150	55	-85	0.4291
2016.826952	42.79	13.12	8	3.63	340	75	-40	0.6081
2016.827407	42.87	13.16	5	3.68	0	75	-80	0.595
2016.827642	42.8	13.14	5	3.18	338	61	-98	0.614
2016.827789	42.88	13.09	6	3.37	328	67	-99	0.5814
2016.828872	42.99	13.05	6	3.36	316	66	-108	0.661
2016.829038	42.85	13.15	3	3.31	25	85	70	0.5717
2016.829517	43.02	13.1	3	3	123	68	-125	0.5364

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2016.829607	42.88	13.2	1	3.08	325	55	-90	0.4949
2016.829737	42.81	13.1	7	4.08	330	50	-90	0.5847
2016.829832	42.96	13.08	5	3.12	314	66	-116	0.6106
2016.830389	42.83	13.1	5	3.21	353	61	-96	0.4778
2016.83049	43.06	13.07	5	3.26	160	65	-65	0.6386
2016.831361	42.84	13.11	2	6.33	150	55	-90	0.6296
2016.831577	42.86	13.05	8	3.74	345	90	-55	0.6256
2016.83158	42.83	13.08	8	4.25	5	75	-80	0.7201
2016.83159	42.88	13.19	2	3.64	308	51	-124	0.5424
2016.831622	42.71	13.22	7	3.43	155	55	-55	0.5189
2016.83163	42.93	13.21	4	3.37	270	57	123	0.4621
2016.831632	42.86	13.11	3	3.37	345	80	35	0.4459
2016.831723	42.84	13.12	5	3.48	350	65	-80	0.5534
2016.831786	42.94	13.2	2	3.61	350	50	-65	0.5444
2016.83179	42.84	13.07	7	3.59	335	75	-90	0.5951
2016.831834	44.18	12.24	10	3.66	68	80	118	0.453
2016.831836	42.78	13.08	7	3.75	353	74	-102	0.5128
2016.831855	42.82	13.09	6	3.52	328	67	-99	0.6114
2016.831865	42.92	13.19	2	3.58	298	51	-124	0.5387
2016.831892	42.8	13.19	7	3.53	165	65	-80	0.6751
2016.831892	42.8	13.19	7	3.53	165	65	-80	0.6751

2016.831893	43.06	13.07	5	3.98	160	60	-70	0.6696
2016.831904	42.85	13.12	9	3.22	305	68	-118	0.4691
2016.831929	42.89	13.14	5	3.47	325	55	-75	0.5919
2016.831964	42.84	13.06	9	4.04	340	90	-85	0.7422
2016.83198	42.84	13.08	6	4.5	330	75	-91	0.6644
2016.832017	42.93	13.2	2	3.66	345	55	-60	0.492
2016.832017	42.93	13.2	2	3.66	345	55	-60	0.492
2016.832029	42.85	13.14	3	3.31	350	75	-91	0.4988
2016.832034	42.92	13.15	2	3.32	306	52	-117	0.4691
2016.832041	42.92	13.19	4	3.07	83	74	143	0.4959
2016.832043	42.91	13.2	2	3.19	165	50	-65	0.5013
2016.832061	42.73	13.19	2	3.1	149	66	-116	0.4912
2016.832077	42.9	13.2	2	3.26	338	50	-94	0.5933
2016.832086	42.73	13.15	6	3.27	333	45	-95	0.5766
2016.832108	42.77	13.06	7	3.34	314	54	-110	0.5941
2016.832116	42.81	13.2	7	3.15	170	70	-92	0.6239
2016.832122	43.02	13.12	1	3.45	335	45	-90	0.5624
2016.832125	43.01	13.12	4	3.26	299	81	-102	0.4004
2016.832147	42.8	13.16	6	4.09	155	75	-50	0.5772
2016.832161	42.9	13.22	4	3.31	188	69	-148	0.4084
2016.832171	42.91	13.2	1	3.06	292	61	-118	0.4406
2016.832201	42.94	13.21	1	3.54	158	56	-97	0.4961

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2016.832209	42.79	13.07	7	3.23	329	71	-95	0.5622
2016.832222	42.91	13.2	2	3.46	151	46	-100	0.5777
2016.832223	42.78	13.09	7	3.75	165	75	87	0.6374
2016.832237	42.68	13.21	5	3.08	341	69	-112	0.5081
2016.832242	42.76	13.06	6	3.39	360	88	-100	0.6818
2016.832281	42.9	13.16	2	3.6	335	60	-65	0.5193
2016.832287	42.93	13.21	3	3	185	85	-35	0.4512
2016.832291	42.69	13.19	7	3.11	347	71	-107	0.5729
2016.83233	42.94	13.2	2	3.23	165	65	-80	0.5095
2016.832336	42.93	13.2	2	3.14	132	50	-113	0.4894
2016.832343	42.84	13.04	7	3.02	343	67	-101	0.5123
2016.832345	42.8	13.14	6	3.27	168	56	-97	0.555
2016.832356	42.77	13.2	3	2.94	335	50	-65	0.4682
2016.832369	42.86	13.1	8	2.95	220	55	-50	0.5343
2016.832437	43.06	13.07	5	3.59	160	55	-70	0.5857
2016.832449	42.82	13.16	6	3.05	321	86	115	0.5507
2016.832452	42.78	13.17	5	2.97	83	74	-102	0.4753
2016.832458	42.83	13.05	6	3.18	330	70	-90	0.5492
2016.832519	42.92	13.21	3	2.9	296	58	-138	0.4421
2016.832551	43.07	13.07	5	3.15	160	60	-75	0.5382
2016.832562	42.81	13.1	7	2.99	107	66	141	0.5706

2016.832594	42.87	13.07	7	3.1	306	63	-127	0.504
2016.832597	42.89	13.16	2	3.44	128	48	-109	0.5483
2016.832627	42.95	13.18	4	3.02	170	75	35	0.375
2016.83263	42.91	13.14	6	3.57	175	50	-60	0.5957
2016.832639	42.88	13.21	2	3.15	310	71	-120	0.5146
2016.832663	42.92	13.21	1	2.79	145	53	-106	0.4172
2016.83269	42.79	13.15	1	3.85	355	45	-90	0.5557
2016.832725	42.81	13.1	5	3.4	325	70	-88	0.6205
2016.832761	42.8	13.15	1	3.05	166	46	-100	0.4884
2016.832937	42.81	13.09	8	2.99	155	70	60	0.4125
2016.832967	42.93	13.2	4	3.29	274	67	153	0.4925
2016.832977	42.94	13.14	6	3.27	326	57	-103	0.5394
2016.833132	42.8	13.16	1	2.81	177	45	-85	0.4867
2016.833143	42.91	13.16	1	3.29	150	50	-80	0.5197
2016.83319	42.9	13.2	4	3.06	290	73	148	0.5478
2016.833195	42.81	13.19	7	3.41	175	70	-70	0.6749
2016.833233	42.92	13.21	4	3.19	20	65	35	0.4375
2016.833237	42.91	13.05	7	3.31	300	55	-120	0.6027
2016.83327	42.72	13.18	1	2.89	345	85	-175	0.4997
2016.833319	42.78	13.12	7	3.44	339	79	-101	0.5952
2016.833326	42.83	13.09	4	3.54	147	69	148	0.4215
2016.833355	42.78	13.1	7	3.2	340	85	-45	0.6665

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2016.833365	42.75	13.19	4	2.98	116	82	-145	0.5586
2016.833367	42.73	13.19	2	2.85	175	50	-70	0.6116
2016.833391	42.75	13.13	7	3.34	328	74	-102	0.6465
2016.833391	42.75	13.13	7	3.34	328	74	-102	0.6465
2016.83342	42.8	13.1	7	3.19	8	67	-99	0.6348
2016.83343	42.99	13.11	2	2.82	145	65	-70	0.5012
2016.83345	42.79	13.04	6	3.37	335	90	-75	0.7299
2016.833514	42.74	13.18	6	2.98	305	60	-60	0.5715
2016.833539	42.9	13.15	2	3.4	160	60	-65	0.636
2016.833566	42.78	13.12	11	3.11	91	78	144	0.593
2016.833626	42.78	13.11	7	2.94	325	85	-65	0.6135
2016.833655	43.07	13.07	5	3.55	165	60	-70	0.6117
2016.833673	42.62	13.3	5	3.46	160	65	-85	0.6844
2016.833686	42.84	13.05	5	3.17	252	80	165	0.7493
2016.833727	42.77	13.09	7	4.03	354	84	-104	0.6939
2016.833737	42.95	13.19	2	3.61	101	58	-138	0.5189
2016.833747	42.72	13.19	4	2.95	343	50	-94	0.6141
2016.833769	42.94	13.14	7	3.06	323	66	-123	0.6308
2016.833828	42.89	13.19	2	3.23	330	50	-80	0.5216
2016.833831	42.84	13.06	7	3.38	340	60	-90	0.5514
2016.833882	42.79	13.07	6	3.21	327	70	-105	0.6326

2016.833937	42.77	13.21	3	3.12	312	51	-98	0.6279
2016.834049	42.77	13.21	5	3.74	309	47	-105	0.5416
2016.834141	42.84	13.13	5	3.98	355	70	-85	0.5996
2016.834315	43.02	13.08	5	3.44	165	55	-65	0.5965
2016.834321	42.81	13.14	5	3.42	328	61	-96	0.6035
2016.834354	42.81	13.19	7	3.23	165	75	-65	0.6
2016.834423	42.82	13.15	7	3.48	146	66	-129	0.671
2016.834428	42.91	13.11	8	2.9	289	86	-135	0.5436
2016.834507	42.9	13.21	2	2.87	200	50	-60	0.5328
2016.834591	42.77	13.08	7	3.07	279	87	-130	0.6223
2016.83463	42.69	13.27	7	3.06	340	80	-80	0.5778
2016.834728	42.92	13.22	2	3.13	345	50	-75	0.4941
2016.834987	43.06	13.13	2	2.92	131	63	-127	0.4721
2016.835056	42.75	13.14	8	3.12	323	86	-145	0.583
2016.835146	42.9	13.14	5	3.3	150	55	-75	0.5171
2016.835297	42.77	13.05	6	3.18	160	75	75	0.5859
2016.835346	42.95	13.2	2	3.22	330	50	-80	0.4644
2016.835379	42.74	13.15	1	2.98	215	65	-65	0.4859
2016.835656	42.94	13.21	2	3.07	125	68	-118	0.4742
2016.835741	42.89	13.18	4	3.01	265	73	148	0.4309
2016.835885	42.81	13.05	7	3.21	286	73	-115	0.5839
2016.836058	42.95	13.2	1	3.13	340	50	-75	0.5627

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2016.836135	42.85	13.08	8	3.04	331	73	-115	0.6069
2016.836143	42.93	13.06	6	3.01	326	73	-115	0.6018
2016.836361	42.66	13.22	7	3.23	314	54	-110	0.6675
2016.836377	42.77	13.03	7	2.84	325	90	-115	0.4753
2016.836443	42.91	13.31	17	3.49	105	68	-118	0.6629
2016.836627	42.78	13.14	6	2.97	146	46	-100	0.5206
2016.836817	43.01	13.14	1	3.32	147	51	-98	0.6543
2016.836831	43.01	13.14	1	3.15	146	46	-100	0.6193
2016.83697	43	13.16	7	4.6	110	81	-150	0.6314
2016.837294	43.61	11.01	9	3.27	180	70	30	0.5108
2016.83738	42.73	13.21	5	3.14	155	60	-65	0.5566
2016.837397	42.69	13.15	9	3.05	110	70	142	0.618
2016.837568	42.9	13.16	3	2.95	293	57	-130	0.5212
2016.837799	42.91	13.17	1	3.39	318	45	-95	0.4852
2016.837889	42.8	13.11	11	3.18	286	77	-128	0.663
2016.837945	42.93	13.21	2	3.28	335	45	-90	0.5394
2016.838011	42.8	13.1	7	3.19	330	55	-65	0.6232
2016.838113	42.81	13.13	8	3.35	130	75	-65	0.6527
2016.838206	42.73	13.22	6	3.32	317	73	-108	0.6069
2016.838235	42.8	13.03	7	3.67	335	80	-80	0.7055
2016.839426	42.91	13.13	5	2.94	322	69	-131	0.6037



2016.839467	43.04	13.06	6	2.92	316	66	-108	0.6374
2016.839496	42.78	13.08	6	3.15	324	85	-120	0.6786
2016.839498	43.03	13.06	6	3.33	325	65	-90	0.7034
2016.839559	42.8	13.17	6	3.23	111	63	-127	0.7057
2016.839666	42.71	13.19	5	3.13	235	60	-40	0.6448
2016.839875	43	13.15	1	2.99	332	45	-85	0.5433
2016.840076	42.78	13.21	3	3.09	330	60	-60	0.5455
2016.840441	42.88	13.15	7	3.18	328	56	-113	0.6114
2016.840539	42.8	13.15	7	2.8	59	83	-109	0.6582
2016.840606	43.03	13.04	6	3.26	340	65	-80	0.5488
2016.840727	42.89	13.15	5	3.02	332	48	-71	0.4967
2016.841012	42.93	13.21	2	3.11	15	75	20	0.4467
2016.841013	42.94	13.15	5	3.27	328	61	-98	0.537
2016.841033	42.88	13.07	1	3.61	322	51	-98	0.502
2016.841143	42.9	13.2	2	2.75	277	86	150	0.4898
2016.841298	42.88	13.19	2	3.29	134	47	-105	0.4777
2016.841323	43.04	13.06	5	3.06	340	55	-70	0.5937
2016.841323	43.04	13.06	5	3.06	340	55	-70	0.5937
2016.841596	43.03	13.05	5	4.69	324	71	-95	0.578
2016.84166	42.86	13.07	9	2.84	185	60	-80	0.4993
2016.841679	42.66	13.31	2	3.05	154	65	-95	0.4982
2016.841732	43.02	13.06	5	2.96	325	70	-90	0.6884

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2016.841831	42.97	13.15	5	3.2	155	55	-55	0.5188
2016.842401	42.83	13.12	6	3.35	330	55	-90	0.5437
2016.842695	42.78	13.21	4	3.09	8	67	-101	0.577
2016.842895	42.91	13.22	2	3.36	323	57	-130	0.4827
2016.842939	42.92	13.2	2	3.21	180	55	-60	0.5544
2016.84303	42.69	13.18	9	3.73	327	56	-100	0.5733
2016.843203	42.99	13.08	5	3.37	333	69	-103	0.5987
2016.843516	43.03	13.06	6	3.11	317	56	-100	0.5098
2016.843725	43.02	13.05	5	3.06	338	77	-106	0.5221
2016.843869	42.79	13.11	7	3.1	4	84	-114	0.8014
2016.84394	42.76	13.05	7	3.12	310	53	-106	0.5922
2016.844195	42.87	13.1	7	2.93	313	61	-132	0.7073
2016.844296	42.87	13.07	7	3.22	329	66	-97	0.6675
2016.844507	42.68	13.21	9	3.19	307	54	-127	0.7766
2016.844774	42.9	13.16	2	2.94	140	60	-90	0.6684
2016.84497	42.78	13.14	6	3.01	323	56	-97	0.5699
2016.845398	43.01	13.07	5	3	152	45	-85	0.5193
2016.845493	42.87	13.13	3	3.12	102	54	-127	0.536
2016.845916	42.98	13.13	3	2.83	10	65	-30	0.4233
2016.846967	42.79	13.13	6	3.33	332	56	-83	0.6112
2016.847074	42.83	13.23	11	3.06	315	75	-50	0.5299

2016.84724	42.88	13.13	3	2.84	355	65	-80	0.5281
2016.847766	43.06	13.06	5	2.93	321	52	-102	0.7223
2016.847939	42.7	13.15	8	3.11	325	80	-80	0.7741
2016.847954	42.68	13.18	7	2.97	308	51	-124	0.689
2016.848106	42.91	13.19	2	3.11	309	64	-114	0.5527
2016.848257	42.94	13.21	1	3.17	170	60	-75	0.44
2016.848258	42.95	13.23	1	3.59	155	55	-95	0.4776
2016.848276	42.95	13.22	1	3.11	155	55	-75	0.6146
2016.848607	42.79	13.18	7	2.94	102	62	-139	0.5588
2016.848674	42.98	13.13	2	3.32	327	50	-113	0.6437
2016.84903	42.75	13.19	2	3.31	159	55	-93	0.6034
2016.84918	42.95	13.2	1	3.23	155	60	-70	0.7049
2016.849203	42.94	13.22	2	2.87	175	70	-70	0.5945
2016.849441	42.73	13.19	5	3.4	180	50	-60	0.5739
2016.849552	43.04	13.09	2	2.95	5	90	0	0.7965
2016.84956	42.95	13.21	2	3.07	300	55	-120	0.7124
2016.850105	43.06	13.06	5	3.62	311	64	-106	0.4804
2016.850266	42.78	13.2	4	3.13	315	65	-60	0.6059
2016.851805	42.81	13.19	6	3.41	140	65	-75	0.5255
2016.853267	42.88	13.19	2	3.08	330	50	-85	0.601
2016.853891	42.87	13.08	9	3.19	197	77	106	0.6821
2016.854392	43.02	13.14	2	3.24	332	50	-86	0.5021

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2016.854576	42.9	13.18	1	2.73	308	50	-94	0.579
2016.854615	42.89	13.15	9	3.73	326	64	-106	0.6594
2016.855799	42.9	13.18	2	3.01	329	66	-116	0.6655
2016.856133	42.83	13.04	7	3.22	328	73	-100	0.7416
2016.85747	42.81	12.77	7	3.33	290	70	-55	0.7238
2016.858051	42.55	13.25	3	3.04	165	55	-90	0.714
2016.858294	43	13.15	2	3.38	340	45	-90	0.4566
2016.85836	43	13.16	2	2.98	149	54	-110	0.6199
2016.858632	42.66	13.19	9	3.6	180	50	-60	0.6491
2016.858663	42.73	13.18	9	3.28	185	55	-80	0.6358
2016.862232	42.89	13.13	3	3.44	359	65	-92	0.5239
2016.862922	42.78	13.05	7	3.34	315	90	-80	0.7889
2016.867153	42.9	13.18	2	2.94	318	56	-97	0.5902
2016.867551	43	13.13	2	3.73	160	50	-85	0.4966
2016.867599	42.99	13.14	2	3.55	165	50	-80	0.4872
2016.867797	42.72	13.21	5	4.1	331	46	-100	0.6241
2016.868231	42.94	13.2	1	2.91	175	60	-85	0.701
2016.868318	43.03	13.07	5	2.98	345	65	-80	0.5135
2016.868686	42.8	13.14	6	3.53	175	50	-90	0.6342
2016.868722	42.92	13.21	3	3.16	105	76	-159	0.6908
2016.868776	42.82	13.1	8	3.05	10	65	-80	0.6441

2016.868844	42.82	13.1	10	3.02	143	71	159	0.604
2016.869224	42.55	13.23	3	3.17	140	60	-109	0.5959
2016.871474	42.95	13.09	6	3.21	315	55	-120	0.5389
2016.871763	42.86	13.16	8	3.88	324	64	-114	0.676
2016.872216	43.01	13.06	5	3.14	350	60	-70	0.5334
2016.873226	42.98	13.06	6	3.15	335	80	-87	0.7348
2016.873842	42.94	13.15	9	3.67	341	52	-102	0.6638
2016.876261	43.03	13.07	3	3	160	55	-70	0.6453
2016.876425	43.03	13.08	5	3.21	141	55	-87	0.6396
2016.876931	42.75	13.21	5	3.17	355	50	-90	0.6194
2016.878152	43.04	13.11	2	2.87	279	64	146	0.672
2016.878401	42.8	13.13	7	3.8	125	80	-75	0.7088
2016.878415	43.03	13.1	2	2.83	185	85	-35	0.5972
2016.882432	42.77	13.2	10	3.32	314	76	-133	0.5769
2016.885384	43.01	13.07	6	3.22	325	55	-90	0.6311
2016.887501	42.86	13.19	4	3.08	246	72	154	0.7105
2016.888171	42.64	13.22	8	3.24	0	73	-148	0.702
2016.88933	42.95	13.16	9	3.16	348	61	-96	0.5956
2016.891062	44.43	9.79	4	3.18	143	56	-97	0.601
2016.891145	43.01	13.08	5	3.07	330	55	-75	0.549
2016.891876	43.02	13.08	4	2.94	315	50	-85	0.5475
2016.89444	43.01	13.13	2	2.85	141	46	-100	0.5656

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2016.89618	42.84	13.12	5	3.46	334	55	-93	0.6747
2016.896354	42.93	13.15	2	3.16	350	60	-45	0.7215
2016.896899	43.05	13.1	3	2.88	195	90	-15	0.6827
2016.897076	43.05	13.1	3	3.15	10	85	10	0.752
2016.898587	42.72	13.28	10	3.17	322	76	-111	0.7473
2016.902985	43.02	13.08	5	3.13	330	55	-70	0.6286
2016.903194	42.99	13.15	2	2.79	160	55	-75	0.7626
2016.904893	42.86	12.94	3	3.11	80	90	-155	0.7102
2016.907554	42.8	13.21	5	3.37	140	55	-65	0.5368
2016.908889	43.01	13.07	5	3.12	335	65	-75	0.6939
2016.908957	43.01	13.07	3	3.1	335	55	-50	0.7408
2016.909285	43.02	13.08	5	3.59	325	50	-70	0.6016
2016.909332	43.02	13.08	5	3.66	143	45	-95	0.6112
2016.909364	43.02	13.07	4	3.02	334	47	-105	0.7727
2016.909457	43.02	13.07	4	2.96	130	55	-95	0.6875
2016.909573	43.02	13.07	5	3.86	131	46	-100	0.6318
2016.910429	42.65	13.22	8	3.16	129	76	154	0.6157
2016.910587	42.81	12.76	5	3.18	280	65	-60	0.606
2016.910734	43.02	13.07	5	3.61	136	46	-100	0.6312
2016.911699	43.02	13.07	5	3.42	323	61	-98	0.69
2016.912395	43.02	13.07	5	3.48	335	50	-70	0.6188

2016.912783	42.81	12.78	5	3.35	265	50	-80	0.6269
2016.912977	42.76	13.24	7	3.48	335	55	-85	0.5928
2016.913648	43.02	13.12	2	3.06	155	50	-80	0.5986
2016.914416	42.53	13.29	7	4.34	334	71	-95	0.6433
2016.9169	42.75	13.25	9	3.03	344	86	-115	0.5902
2016.919344	43	13.08	5	3.96	328	56	-97	0.507
2016.919963	43.04	13.07	6	3.16	347	56	-83	0.7057
2016.920324	43.04	13.07	6	3.06	325	50	-90	0.6438
2016.92251	43.01	13.14	2	2.99	147	51	-98	0.6833
2016.923738	42.99	13.08	5	3.18	330	60	-85	0.62
2016.926108	43.01	13.06	5	3.14	307	62	-101	0.7412
2016.928549	43.04	13.1	3	3.29	10	90	-10	0.8111
2016.930139	42.56	13.29	6	3.15	335	55	-85	0.7635
2016.931948	40.54	15.82	10	3.72	288	56	-113	0.4703
2016.932488	42.88	13.16	5	2.87	314	71	-126	0.5898
2016.932907	42.83	13.01	1	2.94	97	54	-127	0.5938
2016.933439	43.01	13.07	5	2.92	322	51	-98	0.6267
2016.93388	43.05	13.09	3	2.93	175	65	-45	0.644
2016.935104	42.87	13.22	7	2.95	90	60	-90	0.6444
2016.936065	42.56	13.28	6	3.13	319	66	-97	0.8009
2016.938131	42.84	13.03	7	3.25	325	70	-90	0.7541
2016.940715	43.02	13.07	5	3.41	345	65	-45	0.6286

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2016.940729	44.33	10.5	6	3.83	170	50	-65	0.6349
2016.941442	43.02	13.07	5	3.27	123	48	-109	0.6235
2016.94358	43.02	13.07	4	3.02	324	54	-110	0.638
2016.946825	42.9	13.11	3	4.05	25	65	-70	0.4957
2016.947883	38.06	14.73	7	3.34	50	90	55	0.4595
2016.950041	42.74	13.04	8	3.4	330	70	-85	0.672
2016.953301	42.99	13.07	5	3.4	339	71	-95	0.5464
2016.953996	42.65	13.3	3	3.69	154	60	-93	0.6099
2016.955103	43.02	13.07	5	3.24	330	55	-85	0.561
2016.955109	43.02	13.06	5	3.48	335	55	-75	0.5846
2016.95539	43.02	13.06	5	3.27	340	60	-75	0.5714
2016.956343	42.56	13.27	6	3.18	325	50	-85	0.5866
2016.958023	42.93	13.16	2	3.06	104	60	-145	0.6514
2016.96447	42.92	13.16	2	3.32	355	70	-55	0.5797
2016.966562	42.93	13.2	2	3.2	350	55	-60	0.6765
2016.966938	42.92	13.17	2	3	355	70	-35	0.6174
2016.968429	42.78	13.15	6	3.19	145	53	-106	0.5564
2016.988609	42.92	13.2	2	3.42	323	48	-109	0.5447
2017.005891	42.8	12.75	4	3.91	72	85	-155	0.5715
2017.007233	42.57	13.24	3	2.97	180	70	-45	0.6243
2017.012352	43.01	13.11	1	2.73	140	65	-75	0.5665



2017.01502	42.97	13.07	5	3.18	293	66	-123	0.538
2017.015968	42.44	13.27	7	3.25	118	51	-124	0.6708
2017.023395	42.43	13.27	7	2.99	285	70	-142	0.6639
2017.024636	42.42	13.28	7	3.46	288	66	-141	0.6409
2017.034845	43.08	13.07	5	3.36	175	60	-60	0.5949

**4.3 Table S3.** Dislocation parameters for the earthquakes used in this study to compute cumulative stress changes.

#TYP	#	LONCEN	LATCEN	DCEN	STR	DIP	HORLEN	DIPLN	SS(m)	DS(m)	OP(m)	RAKE
Dislocation	1	13.2200	42.7100	5.0000	155.0000	50.000	12.0865	7.9506	0.0306	0.3496	0.	-85.
Dislocation	2	13.2800	42.6100	5.0000	115.0000	57.000	1.5538	2.6134	-0.0246	0.0378	0.	-123.
Dislocation	3	13.1500	42.7900	5.0000	136.0000	46.000	4.7984	4.8173	-0.0242	0.1372	0.	-100.
Dislocation	4	13.1400	42.8000	5.0000	151.0000	57.000	0.7563	1.7685	-0.0049	0.0214	0.	-103.
Dislocation	5	13.2700	42.6100	7.0000	152.0000	61.000	0.5533	1.4928	0.0017	0.016	0.	-84.
Dislocation	6	13.2400	42.6200	6.0000	150.0000	60.000	0.9790	2.0342	0.	0.0284	0.	-90.
Dislocation	7	13.1200	42.7700	3.0000	160.0000	50.000	1.2847	2.3572	0.	0.0373	0.	-90.
Dislocation	8	13.1500	42.8200	7.0000	155.0000	65.000	1.6406	2.6915	0.0123	0.046	0.	-75.
Dislocation	9	13.2500	42.8000	3.0000	40.0000	65.000	0.6086	1.5718	0.0135	0.0114	0.	-40.0001
Dislocation	10	13.2200	42.6600	7.0000	159.0000	55.000	1.0767	2.1419	-0.0016	0.0312	0.	-93.
Dislocation	11	13.1500	42.7800	5.0000	137.0000	63.000	0.3258	1.1200	-0.0049	0.0081	0.	-121.
Dislocation	12	13.1700	42.8000	6.0000	168.0000	50.000	0.2257	0.9179	-0.0005	0.0065	0.	-94.

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Dislocation	13	13.2100	42.6500	9.0000	147.0000	56.0000	0.8095	1.8348	-0.0041	0.0231	0.	-100.
Dislocation	14	13.2100	42.7500	5.0000	159.0000	72.0000	1.3564	2.4277	-0.0062	0.0389	0.	-99.
Dislocation	15	13.2300	42.6900	7.0000	157.0000	50.0000	0.3085	1.0874	-0.0035	0.0082	0.	-113.
Dislocation	16	13.3300	42.6200	2.0000	138.0000	61.0000	0.5922	1.5488	-0.0024	0.017	0.	-98.
Dislocation	17	13.3000	42.6100	3.0000	140.0000	55.0000	0.2383	0.9454	0.	0.0069	0.	-90.
Dislocation	18	13.2500	42.6100	7.0000	144.0000	65.0000	0.2693	1.0102	-0.0007	0.0078	0.	-95.
Dislocation	19	13.2900	42.6000	5.0000	125.0000	55.0000	1.4129	2.4820	-0.0205	0.0355	0.	-120.
Dislocation	20	13.2900	42.5900	5.0000	122.0000	54.0000	0.3940	1.2416	-0.0069	0.0091	0.	-127.
Dislocation	21	13.2900	42.6700	3.0000	155.0000	55.0000	0.4897	1.3970	0.	0.0142	0.	-90.
Dislocation	22	13.2300	42.7000	7.0000	180.0000	55.0000	0.2693	1.0102	0.0045	0.0064	0.	-55.
Dislocation	23	13.2900	42.6200	5.0000	138.0000	48.0000	0.2551	0.9808	-0.0024	0.007	0.	-109.
Dislocation	24	13.2900	42.6000	5.0000	127.0000	50.0000	2.2121	3.1652	-0.0251	0.0591	0.	-113.
Dislocation	25	13.3000	42.6200	5.0000	159.0000	55.0000	0.2922	1.0558	-0.0004	0.0085	0.	-93.
Dislocation	26	13.2100	42.7500	7.0000	120.0000	70.0000	0.2844	1.0404	0.	-0.0083	0.	90.
Dislocation	27	13.1500	42.7700	5.0000	167.0000	71.0000	0.3487	1.1620	-0.003	0.0097	0.	-107.
Dislocation	28	13.2900	42.5700	7.0000	155.0000	55.0000	0.1792	0.8098	0.0009	0.0051	0.	-80.
Dislocation	29	13.3000	42.6100	5.0000	128.0000	51.0000	0.1697	0.7863	-0.0028	0.0041	0.	-124.
Dislocation	30	13.2900	42.6000	5.0000	150.0000	60.0000	0.2053	0.8718	0.0015	0.0058	0.	-75.
Dislocation	31	13.1500	42.6900	7.0000	143.0000	61.0000	0.4160	1.2788	-0.0013	0.012	0.	-96.
Dislocation	32	13.1500	42.7900	5.0000	175.0000	65.0000	0.2351	0.9384	0.0023	0.0064	0.	-70.
Dislocation	33	13.2600	42.8400	2.0000	170.0000	55.0000	0.2551	0.9808	0.0037	0.0064	0.	-60.
Dislocation	34	13.2400	42.8400	2.0000	175.0000	50.0000	0.5922	1.5488	0.0073	0.0156	0.	-65.
Dislocation	35	13.2500	42.8400	2.0000	175.0000	55.0000	0.7360	1.7426	0.0107	0.0185	0.	-60.

Dislocation	36	13.2500	42.8400	3.0000	165.0000	65.000	0.1866	0.8279	0.0031	0.0044	0.	-55.
Dislocation	37	13.2400	42.8400	2.0000	175.0000	65.000	0.3994	1.2508	0.0058	0.01	0.	-60.
Dislocation	38	13.3100	42.5500	3.0000	150.0000	50.000	0.3128	1.0955	0.0031	0.0085	0.	-70.
Dislocation	39	13.2300	42.7700	4.0000	165.0000	85.000	0.1461	0.7251	0.0027	-0.0033	0.	50.
Dislocation	40	13.1800	42.7900	5.0000	121.0000	52.000	0.2320	0.9315	-0.0014	0.0066	0.	-102.
Dislocation	41	13.2500	42.8400	2.0000	175.0000	65.000	0.4392	1.3170	0.0064	0.011	0.	-60.
Dislocation	42	13.2600	42.5900	7.0000	130.0000	53.000	0.3681	1.1967	-0.0029	0.0103	0.	-106.
Dislocation	43	13.3100	42.6000	5.0000	144.0000	47.000	0.2586	0.9881	-0.0019	0.0073	0.	-105.
Dislocation	44	13.2100	42.7200	7.0000	149.0000	54.000	0.3258	1.1200	-0.0032	0.0089	0.	-110.
Dislocation	45	13.2300	42.8000	5.0000	124.0000	66.000	0.2693	1.0102	-0.001	0.0078	0.	-97.
Dislocation	46	13.2900	42.6300	5.0000	140.0000	55.000	0.2962	1.0637	0.0007	0.0086	0.	-85.
Dislocation	47	13.1100	42.7800	10.0000	103.0000	57.000	0.1944	0.8464	-0.0036	0.0043	0.	-130.
Dislocation	48	13.2900	42.5900	5.0000	159.0000	71.000	0.4638	1.3564	-0.0012	0.0134	0.	-95.
Dislocation	49	13.1200	42.7700	9.0000	155.0000	50.000	0.4104	1.2694	-0.001	0.0119	0.	-95.
Dislocation	50	13.2400	42.8200	5.0000	206.0000	60.000	1.0198	2.0797	0.0015	0.0296	0.	-87.
Dislocation	51	13.1400	42.8200	5.0000	160.0000	55.000	0.6169	1.5834	0.0016	0.0178	0.	-85.
Dislocation	52	13.2000	42.7400	5.0000	144.0000	47.000	0.2383	0.9454	-0.0018	0.0067	0.	-105.
Dislocation	53	13.2000	42.7600	7.0000	165.0000	50.000	0.3783	1.2145	0.0038	0.0103	0.	-70.
Dislocation	54	13.1900	42.7500	6.0000	131.0000	46.000	0.4638	1.3564	-0.0023	0.0133	0.	-100.
Dislocation	55	13.1400	42.7300	4.0000	132.0000	75.000	0.1652	0.7748	-0.0036	-0.0032	0.	137.9999
Dislocation	56	13.1500	42.8300	6.0000	119.0000	77.000	0.1744	0.7980	-0.0031	-0.004	0.	128.
Dislocation	57	13.2200	42.8600	4.0000	185.0000	80.000	0.2621	0.9954	0.0072	-0.0026	0.	20.
Dislocation	58	13.1400	42.8000	6.0000	160.0000	55.000	0.3347	1.1366	0.0041	0.0088	0.	-65.

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Dislocation	59	13.1900	42.7300	8.0000	173.0000	73.000	0.1792	0.8098	-0.0009	0.0051	0.	-100.
Dislocation	60	13.2600	42.8200	3.0000	158.0000	61.000	0.2025	0.8654	-0.0039	0.0044	0.	-132.
Dislocation	61	13.1600	42.8100	7.0000	50.0000	89.000	0.2383	0.9454	-0.0018	0.0067	0.	-105.
Dislocation	62	13.1800	42.7600	6.0000	132.0000	56.000	0.2730	1.0177	-0.0014	0.0078	0.	-100.
Dislocation	63	13.1400	42.8400	5.0000	160.0000	60.000	0.7771	1.7947	0.002	0.0225	0.	-85.
Dislocation	64	13.2400	42.8700	4.0000	97.0000	81.000	0.3783	1.2145	-0.0103	-0.0038	0.	160.
Dislocation	65	13.2400	42.7600	8.0000	165.0000	75.000	0.3258	1.1200	0.0054	0.0077	0.	-55.
Dislocation	66	13.2600	42.8300	5.0000	141.0000	79.000	0.4333	1.3074	-0.0087	0.009	0.	-134.
Dislocation	67	13.1300	42.8300	5.0000	165.0000	60.000	0.3583	1.1792	0.0018	0.0102	0.	-80.
Dislocation	68	13.1600	42.7800	5.0000	164.0000	65.000	0.3783	1.2145	-0.0004	0.011	0.	-92.
Dislocation	69	13.2400	42.7500	5.0000	130.0000	45.000	0.3887	1.2325	0.	0.0113	0.	-90.
Dislocation	70	13.1800	42.8500	11.0000	117.0000	61.000	0.1866	0.8279	-0.0025	0.0048	0.	-118.
Dislocation	71	13.3100	42.6200	5.0000	145.0000	60.000	0.4964	1.4073	0.0025	0.0142	0.	-80.
Dislocation	72	13.2300	42.8600	5.0000	135.0000	50.000	0.2483	0.9665	0.	0.0072	0.	-90.
Dislocation	73	13.2400	42.8100	3.0000	135.0000	70.000	0.2227	0.9112	-0.0051	0.004	0.	-142.
Dislocation	74	13.1700	42.8100	7.0000	40.0000	80.000	0.2517	0.9736	0.0071	-0.0019	0.	15.
Dislocation	75	13.3000	42.5600	6.0000	121.0000	69.000	0.3393	1.1450	-0.0037	0.0091	0.	-112.
Dislocation	76	13.1400	42.7500	2.0000	195.0000	50.000	0.1607	0.7635	0.002	0.0042	0.	-65.
Dislocation	77	9.6000	44.5000	3.0000	77.0000	76.000	0.2383	0.9454	-0.0025	0.0065	0.	-111.
Dislocation	78	13.1300	42.7700	2.0000	158.0000	61.000	1.0337	2.0951	-0.0042	0.0297	0.	-98.
Dislocation	79	13.2000	42.8100	3.0000	158.0000	74.000	0.1792	0.8098	-0.0011	0.0051	0.	-102.
Dislocation	80	13.2600	42.9300	4.0000	170.0000	80.000	0.1892	0.8341	0.0023	0.005	0.	-65.
Dislocation	81	13.2100	42.8700	4.0000	104.0000	85.000	1.2334	2.3057	-0.0353	-0.0062	0.	170.

Dislocation	82	13.2200	42.8700	4.0000	190.0000	70.000	0.2416	0.9524	0.0064	-0.003	0.	25.
Dislocation	83	13.2200	42.8600	2.0000	115.0000	67.000	0.2081	0.8782	-0.0043	0.0042	0.	-136.
Dislocation	84	7.5200	43.9800	9.0000	112.0000	81.000	0.3258	1.1200	-0.0089	-0.0032	0.	160.
Dislocation	85	13.2300	42.8500	2.0000	132.0000	63.000	0.1607	0.7635	-0.0024	0.004	0.	-121.
Dislocation	86	13.2100	42.8500	4.0000	107.0000	81.000	0.3393	1.1450	-0.0093	-0.0034	0.	160.
Dislocation	87	13.3100	42.6300	7.0000	159.0000	65.000	0.1697	0.7863	-0.0004	0.0049	0.	-95.
Dislocation	88	13.2400	42.8500	2.0000	140.0000	60.000	0.2551	0.9808	-0.0024	0.007	0.	-109.
Dislocation	89	13.3400	42.6500	6.0000	140.0000	55.000	0.4452	1.3268	0.0022	0.0127	0.	-80.
Dislocation	90	13.0000	42.8300	7.0000	180.0000	65.000	0.1720	0.7921	0.0043	-0.0025	0.	30.
Dislocation	91	13.3400	42.6600	5.0000	126.0000	46.000	0.2693	1.0102	-0.0014	0.0077	0.	-100.
Dislocation	92	13.1900	42.7600	6.0000	155.0000	55.000	0.2351	0.9384	0.0006	0.0068	0.	-85.
Dislocation	93	13.2200	42.8600	2.0000	141.0000	73.000	0.2621	0.9954	-0.0032	0.0069	0.	-115.
Dislocation	94	13.1900	42.7300	9.0000	127.0000	54.000	0.2483	0.9665	-0.0043	0.0058	0.	-127.
Dislocation	95	13.2000	42.8000	6.0000	215.0000	60.000	0.2730	1.0177	0.004	0.0069	0.	-60.
Dislocation	96	13.3000	42.6700	9.0000	175.0000	70.000	0.2053	0.8718	0.	0.006	0.	-90.
Dislocation	97	13.2400	42.8000	1.0000	133.0000	45.000	0.3214	1.1117	-0.0008	0.0093	0.	-95.
Dislocation	98	13.1600	42.9500	1.0000	144.0000	47.000	0.2053	0.8718	-0.0015	0.0058	0.	-105.
Dislocation	99	13.2600	42.8400	3.0000	195.0000	55.000	0.1841	0.8219	0.0031	0.0044	0.	-55.
Dislocation	100	13.1600	42.9600	1.0000	160.0000	60.000	0.2025	0.8654	0.0015	0.0057	0.	-75.
Dislocation	101	13.2300	42.7900	3.0000	150.0000	55.000	0.2805	1.0328	0.0014	0.008	0.	-80.
Dislocation	102	13.2800	42.6800	4.0000	150.0000	50.000	0.2962	1.0637	0.0007	0.0086	0.	-85.
Dislocation	103	13.2200	42.8000	2.0000	134.0000	47.000	0.2109	0.8847	-0.0016	0.0059	0.	-105.
Dislocation	104	13.2000	42.5800	15.0000	150.0000	70.000	0.3393	1.1450	0.0075	0.0063	0.	-40.0001

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Dislocation	105	13.2600	42.8600	2.0000	100.0000	74.000	0.1944	0.8464	-0.0034	0.0045	0.	-127.
Dislocation	106	13.1300	42.7800	2.0000	150.0000	60.000	0.1892	0.8341	0.0005	0.0055	0.	-85.
Dislocation	107	13.1300	42.7800	2.0000	178.0000	61.000	0.5686	1.5150	-0.0017	0.0164	0.	-96.
Dislocation	108	13.1300	42.7800	2.0000	182.0000	56.000	0.4217	1.2882	-0.0021	0.0121	0.	-100.
Dislocation	109	13.1400	42.7800	1.0000	165.0000	55.000	0.3044	1.0794	0.	0.0088	0.	-90.
Dislocation	110	13.1400	42.7500	1.0000	170.0000	50.000	0.1607	0.7635	-0.0004	0.0046	0.	-95.
Dislocation	111	13.0900	42.7600	7.0000	43.0000	76.000	0.2351	0.9384	-0.0017	0.0066	0.	-104.
Dislocation	112	13.2300	42.8400	5.0000	120.0000	59.000	0.2844	1.0404	-0.0023	0.0079	0.	-106.
Dislocation	113	13.2900	42.6800	4.0000	145.0000	80.000	0.2517	0.9736	0.0047	0.0056	0.	-50.
Dislocation	114	13.2500	42.8200	2.0000	132.0000	71.000	0.2109	0.8847	-0.0045	0.0042	0.	-137.
Dislocation	115	16.4500	39.0400	17.0000	68.0000	69.000	0.3170	1.1036	-0.0021	0.009	0.	-103.
Dislocation	116	13.2900	42.6800	4.0000	135.0000	75.000	0.1816	0.8158	0.0026	0.0046	0.	-60.
Dislocation	117	13.2800	42.6700	4.0000	145.0000	65.000	0.5313	1.4602	0.0088	0.0126	0.	-55.
Dislocation	118	13.2900	42.6800	4.0000	145.0000	90.000	0.2805	1.0328	0.0028	-0.0077	0.	70.
Dislocation	119	13.1500	42.8100	6.0000	120.0000	75.000	0.1918	0.8402	0.0019	0.0052	0.	-70.
Dislocation	120	13.1500	42.8100	6.0000	130.0000	90.000	0.1918	0.8402	0.0019	0.0052	0.	-70.
Dislocation	121	13.1500	42.8000	5.0000	175.0000	90.000	0.3583	1.1792	0.0018	-0.0102	0.	80.
Dislocation	122	13.1300	42.7800	2.0000	140.0000	75.000	0.1607	0.7635	0.0004	0.0046	0.	-85.
Dislocation	123	13.1900	42.7600	5.0000	155.0000	60.000	0.4104	1.2694	0.0021	0.0117	0.	-80.
Dislocation	124	13.2500	42.9000	5.0000	175.0000	60.000	0.3681	1.1967	0.0028	0.0103	0.	-75.
Dislocation	125	13.2400	42.9000	5.0000	175.0000	60.000	0.4452	1.3268	0.0044	0.0121	0.	-70.
Dislocation	126	13.2300	42.7900	2.0000	140.0000	55.000	0.2962	1.0637	0.0015	0.0085	0.	-80.
Dislocation	127	13.1200	42.8600	5.0000	107.0000	54.000	0.3940	1.2416	-0.0069	0.0091	0.	-127.

Dislocation	128	13.2200	42.6400	7.0000	148.0000	61.000	0.2586	0.9881	-0.001	0.0074	0.	-98.
Dislocation	129	13.1400	42.8800	5.0000	149.0000	66.000	0.1697	0.7863	-0.0006	0.0049	0.	-97.
Dislocation	130	13.2500	42.9000	5.0000	160.0000	65.000	0.2922	1.0558	0.0022	0.0082	0.	-75.
Dislocation	131	13.2000	42.7800	6.0000	90.0000	65.000	0.1866	0.8279	0.0031	0.0044	0.	-55.
Dislocation	132	13.1800	42.7500	3.0000	148.0000	45.000	0.4701	1.3665	-0.0012	0.0136	0.	-95.
Dislocation	133	13.1900	42.7500	4.0000	148.0000	45.000	0.2517	0.9736	-0.0006	0.0073	0.	-95.
Dislocation	134	13.1900	42.7400	3.0000	151.0000	46.000	0.7360	1.7426	-0.0037	0.021	0.	-100.
Dislocation	135	13.2000	42.7400	3.0000	165.0000	70.000	0.2320	0.9315	0.0006	0.0067	0.	-85.
Dislocation	136	13.2000	42.7400	3.0000	160.0000	60.000	0.4217	1.2882	0.0011	0.0122	0.	-85.
Dislocation	137	13.2500	42.8600	1.0000	115.0000	53.000	0.1629	0.7691	-0.0013	0.0045	0.	-106.
Dislocation	138	13.0700	42.8700	5.0000	145.0000	55.000	0.2586	0.9881	0.0026	0.0071	0.	-70.
Dislocation	139	13.3300	42.6300	5.0000	152.0000	51.000	0.3170	1.1036	-0.0013	0.0091	0.	-98.
Dislocation	140	13.2600	42.8900	3.0000	145.0000	60.000	0.2517	0.9736	0.0042	0.006	0.	-55.
Dislocation	141	13.1800	42.7500	3.0000	180.0000	60.000	0.2257	0.9179	0.0022	0.0062	0.	-70.
Dislocation	142	13.1800	42.7500	3.0000	161.0000	46.000	0.7771	1.7947	-0.0039	0.0222	0.	-100.
Dislocation	143	13.1500	42.8500	5.0000	175.0000	70.000	0.2922	1.0558	0.0007	0.0085	0.	-85.
Dislocation	144	15.6500	40.7600	16.0000	150.0000	89.000	0.4160	1.2788	-0.0021	-0.0119	0.	100.
Dislocation	145	11.0500	43.1900	9.0000	37.0000	78.000	0.4392	1.3170	-0.0048	-0.0118	0.	112.
Dislocation	146	12.5500	43.3800	1.0000	145.0000	60.000	0.1918	0.8402	0.001	0.0055	0.	-80.
Dislocation	147	10.9900	43.6000	8.0000	82.0000	85.000	0.7667	1.7816	-0.0202	0.0094	0.	-155.
Dislocation	148	13.1300	42.8800	5.0000	154.0000	60.000	4.8641	4.8529	-0.0074	0.141	0.	-93.
Dislocation	149	13.0900	42.8800	6.0000	159.0000	66.000	0.3214	1.1117	-0.0011	0.0093	0.	-97.
Dislocation	150	13.1200	42.9100	5.0000	144.0000	47.000	0.3347	1.1366	-0.0025	0.0094	0.	-105.

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Dislocation	151	13.1300	42.8900	5.0000	170.0000	60.000	0.2257	0.9179	0.0017	0.0063	0.	-75.
Dislocation	152	13.1300	42.9100	5.0000	162.0000	45.000	10.5511	7.3858	0.0267	0.3052	0.	-85.
Dislocation	153	13.0700	42.8900	6.0000	175.0000	75.000	0.6971	1.6920	0.0116	-0.0166	0.	55.
Dislocation	154	13.0800	42.8700	5.0000	149.0000	66.000	0.5764	1.5262	-0.002	0.0166	0.	-97.
Dislocation	155	13.2600	42.8200	4.0000	134.0000	79.000	0.2138	0.8913	-0.0043	-0.0045	0.	134.
Dislocation	156	13.1300	42.8600	5.0000	150.0000	60.000	1.5966	2.6522	0.	0.0464	0.	-90.
Dislocation	157	13.2100	42.8600	4.0000	163.0000	78.000	0.3258	1.1200	-0.0035	0.0088	0.	-112.
Dislocation	158	13.1600	42.9300	2.0000	137.0000	84.000	0.2586	0.9881	-0.0043	-0.0061	0.	125.
Dislocation	159	13.1200	42.8700	5.0000	186.0000	60.000	0.2768	1.0252	0.0004	0.008	0.	-87.
Dislocation	160	13.1700	42.8400	3.0000	150.0000	60.000	0.3887	1.2325	0.0039	0.0106	0.	-70.
Dislocation	161	13.1700	42.8400	2.0000	175.0000	60.000	0.2227	0.9112	0.0046	0.0046	0.	-45.
Dislocation	162	13.1200	42.9900	2.0000	146.0000	55.000	0.3044	1.0794	0.0005	0.0088	0.	-87.
Dislocation	163	13.0600	42.8900	7.0000	130.0000	55.000	0.2693	1.0102	-0.0039	0.0068	0.	-120.
Dislocation	164	13.1500	42.8400	5.0000	159.0000	60.000	0.7878	1.8080	-0.0012	0.0228	0.	-93.
Dislocation	165	13.1300	42.9900	3.0000	170.0000	70.000	0.9528	2.0045	0.0048	0.0272	0.	-80.
Dislocation	166	13.1300	42.8700	3.0000	161.0000	73.000	0.2883	1.0481	-0.0035	0.0076	0.	-115.
Dislocation	167	13.1000	42.8700	5.0000	168.0000	61.000	1.2847	2.3572	-0.0039	0.0371	0.	-96.
Dislocation	168	13.1500	42.9600	1.0000	160.0000	80.000	0.2167	0.8978	0.0044	0.0044	0.	-45.
Dislocation	169	13.1300	43.0200	1.0000	135.0000	59.000	0.3128	1.0955	-0.0025	0.0087	0.	-106.
Dislocation	170	13.1400	43.0200	1.0000	128.0000	66.000	0.2288	0.9247	-0.0036	0.0056	0.	-123.
Dislocation	171	13.1600	42.7900	5.0000	173.0000	61.000	0.2883	1.0481	-0.0009	0.0083	0.	-96.
Dislocation	172	13.0700	42.9500	7.0000	144.0000	66.000	0.2551	0.9808	-0.0032	0.0067	0.	-116.
Dislocation	173	13.1000	42.8400	5.0000	175.0000	70.000	1.1841	2.2553	-0.0012	0.0344	0.	-92.



Dislocation	174	13.1100	42.8500	5.0000	175.0000	65.000	0.6784	1.6673	0.	0.0197	0.	-90.
Dislocation	175	13.1200	43.0100	2.0000	170.0000	50.000	0.3214	1.1117	0.0039	0.0085	0.	-65.
Dislocation	176	13.1500	42.8700	3.0000	107.0000	62.000	0.2351	0.9384	-0.0052	0.0045	0.	-139.
Dislocation	177	13.1200	42.8200	5.0000	156.0000	57.000	0.2962	1.0637	-0.0019	0.0084	0.	-103.
Dislocation	178	13.1400	42.9900	2.0000	140.0000	55.000	0.2922	1.0558	0.	0.0085	0.	-90.
Dislocation	179	13.1200	43.0300	2.0000	121.0000	64.000	0.3170	1.1036	-0.0076	0.0051	0.	-146.
Dislocation	180	13.1500	42.9900	2.0000	130.0000	53.000	0.2883	1.0481	-0.0023	0.008	0.	-106.
Dislocation	181	13.1400	43.0000	2.0000	145.0000	50.000	0.2621	0.9954	0.0007	0.0076	0.	-85.
Dislocation	182	13.0400	42.8600	8.0000	130.0000	67.000	0.2730	1.0177	-0.0057	0.0055	0.	-136.
Dislocation	183	13.1800	42.8900	2.0000	150.0000	50.000	0.2320	0.9315	0.0012	0.0066	0.	-80.
Dislocation	184	13.1400	42.9600	3.0000	106.0000	66.000	0.2257	0.9179	-0.0041	0.0051	0.	-129.
Dislocation	185	13.1100	42.9200	5.0000	155.0000	55.000	0.3170	1.1036	0.0046	0.008	0.	-60.
Dislocation	186	13.2100	42.8700	1.0000	150.0000	55.000	0.3440	1.1535	0.0009	0.0099	0.	-85.
Dislocation	187	13.1200	42.7900	8.0000	160.0000	75.000	0.5032	1.4178	0.0112	0.0094	0.	-40.0001
Dislocation	188	13.1600	42.8700	5.0000	180.0000	75.000	0.5385	1.4710	0.0027	0.0154	0.	-80.
Dislocation	189	13.1400	42.8000	5.0000	158.0000	61.000	0.2730	1.0177	-0.0011	0.0078	0.	-98.
Dislocation	190	13.0900	42.8800	6.0000	148.0000	67.000	0.3534	1.1706	-0.0016	0.0101	0.	-99.
Dislocation	191	13.0500	42.9900	6.0000	136.0000	66.000	0.3487	1.1620	-0.0031	0.0096	0.	-108.
Dislocation	192	13.1500	42.8500	3.0000	205.0000	85.000	0.3258	1.1200	0.0032	-0.0089	0.	70.
Dislocation	193	13.1000	43.0200	3.0000	123.0000	68.000	0.2138	0.8913	-0.0036	0.0051	0.	-125.
Dislocation	194	13.2000	42.8800	1.0000	145.0000	55.000	0.2383	0.9454	0.	0.0069	0.	-90.
Dislocation	195	13.1000	42.8100	7.0000	150.0000	50.000	0.9273	1.9751	0.	0.0269	0.	-90.
Dislocation	196	13.0800	42.9600	5.0000	134.0000	66.000	0.2517	0.9736	-0.0032	0.0066	0.	-116.
Dislocation	197	13.1000	42.8300	5.0000	173.0000	61.000	0.2844	1.0404	-0.0009	0.0082	0.	-96.

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Dislocation	198	13.0700	43.0600	5.0000	160.0000	65.0000	0.3044	1.0794	0.0037	0.008	0.	-65.
Dislocation	199	13.1100	42.8400	2.0000	150.0000	55.0000	19.7106	10.3657	0.	0.5722	0.	-90.
Dislocation	200	13.0500	42.8600	8.0000	165.0000	90.0000	0.5843	1.5374	0.0097	0.0139	0.	-55.
Dislocation	201	13.0800	42.8300	8.0000	185.0000	75.0000	1.1681	2.2387	0.0059	0.0334	0.	-80.
Dislocation	202	13.1900	42.8800	2.0000	128.0000	51.0000	0.5100	1.4282	-0.0083	0.0123	0.	-124.
Dislocation	203	13.2200	42.7100	7.0000	155.0000	55.0000	0.3834	1.2235	0.0064	0.0091	0.	-55.
Dislocation	204	13.2100	42.9300	4.0000	90.0000	57.0000	0.3534	1.1706	-0.0056	-0.0086	0.	123.
Dislocation	205	13.1100	42.8600	3.0000	165.0000	80.0000	0.3534	1.1706	0.0084	-0.0059	0.	35.
Dislocation	206	13.1200	42.8400	5.0000	170.0000	65.0000	0.4104	1.2694	0.0021	0.0117	0.	-80.
Dislocation	207	13.2000	42.9400	2.0000	170.0000	50.0000	0.4897	1.3970	0.006	0.0129	0.	-65.
Dislocation	208	13.0700	42.8400	7.0000	155.0000	75.0000	0.4765	1.3766	0.	0.0138	0.	-90.
Dislocation	209	12.2400	44.1800	10.0000	68.0000	80.0000	0.5241	1.4494	-0.0071	-0.0134	0.	118.
Dislocation	210	13.0800	42.7800	7.0000	173.0000	74.0000	0.5922	1.5488	-0.0036	0.0168	0.	-102.
Dislocation	211	13.0900	42.8200	6.0000	148.0000	67.0000	0.4333	1.3074	-0.002	0.0124	0.	-99.
Dislocation	212	13.1900	42.9200	2.0000	118.0000	51.0000	0.4701	1.3665	-0.0076	0.0113	0.	-124.
Dislocation	213	13.1900	42.8000	7.0000	165.0000	65.0000	0.4392	1.3170	0.0022	0.0126	0.	-80.
Dislocation	214	13.1900	42.8000	7.0000	165.0000	65.0000	0.4392	1.3170	0.0022	0.0126	0.	-80.
Dislocation	215	13.0700	43.0600	5.0000	160.0000	60.0000	0.8095	1.8348	0.008	0.0221	0.	-70.
Dislocation	216	13.1200	42.8500	9.0000	125.0000	68.0000	0.2883	1.0481	-0.0039	0.0074	0.	-118.
Dislocation	217	13.1400	42.8900	5.0000	145.0000	55.0000	0.4049	1.2601	0.003	0.0114	0.	-75.
Dislocation	218	13.0600	42.8400	9.0000	160.0000	90.0000	0.8782	1.9178	0.0022	0.0254	0.	-85.
Dislocation	219	13.0800	42.8400	6.0000	150.0000	75.0000	1.6406	2.6915	-0.0008	0.0476	0.	-91.
Dislocation	220	13.2000	42.9300	2.0000	165.0000	55.0000	0.5241	1.4494	0.0076	0.0132	0.	-60.

Dislocation	221	13.2000	42.9300	2.0000	165.0000	55.0000	0.5241	1.4494	0.0076	0.0132	0.	-60.
Dislocation	222	13.1400	42.8500	3.0000	170.0000	75.0000	0.3258	1.1200	-0.0002	0.0095	0.	-91.
Dislocation	223	13.1500	42.9200	2.0000	126.0000	52.0000	0.3302	1.1282	-0.0044	0.0085	0.	-117.
Dislocation	224	13.1900	42.9200	4.0000	83.0000	74.0000	0.2351	0.9384	-0.0055	-0.0041	0.	142.9999
Dislocation	225	13.2000	42.9100	2.0000	165.0000	50.0000	0.2768	1.0252	0.0034	0.0073	0.	-65.
Dislocation	226	13.1900	42.7300	2.0000	149.0000	66.0000	0.2449	0.9594	-0.0031	0.0064	0.	-116.
Dislocation	227	13.2000	42.9000	2.0000	158.0000	50.0000	0.3044	1.0794	-0.0006	0.0088	0.	-94.
Dislocation	228	13.1500	42.7300	6.0000	153.0000	45.0000	0.3085	1.0874	-0.0008	0.0089	0.	-95.
Dislocation	229	13.0600	42.7700	7.0000	134.0000	54.0000	0.3393	1.1450	-0.0034	0.0093	0.	-110.
Dislocation	230	13.2000	42.8100	7.0000	170.0000	70.0000	0.2621	0.9954	-0.0003	0.0076	0.	-92.
Dislocation	231	13.1200	43.0200	1.0000	155.0000	45.0000	0.3940	1.2416	0.	0.0114	0.	-90.
Dislocation	232	13.1200	43.0100	4.0000	119.0000	81.0000	0.3044	1.0794	-0.0018	0.0086	0.	-102.
Dislocation	233	13.1600	42.8000	6.0000	155.0000	75.0000	0.9399	1.9898	0.0175	0.0209	0.	-50.
Dislocation	234	13.2200	42.9000	4.0000	188.0000	69.0000	0.3258	1.1200	-0.008	0.005	0.	-147.9999
Dislocation	235	13.2000	42.9100	1.0000	112.0000	61.0000	0.2320	0.9315	-0.0032	0.0059	0.	-118.
Dislocation	236	13.2100	42.9400	1.0000	158.0000	56.0000	0.4452	1.3268	-0.0016	0.0128	0.	-97.
Dislocation	237	13.0700	42.7900	7.0000	149.0000	71.0000	0.2922	1.0558	-0.0007	0.0085	0.	-95.
Dislocation	238	13.2000	42.9100	2.0000	151.0000	46.0000	0.3994	1.2508	-0.002	0.0114	0.	-100.
Dislocation	239	13.0900	42.7800	7.0000	165.0000	75.0000	0.5922	1.5488	0.0009	-0.0172	0.	87.
Dislocation	240	13.2100	42.6800	5.0000	161.0000	69.0000	0.2383	0.9454	-0.0026	0.0064	0.	-112.
Dislocation	241	13.0600	42.7600	6.0000	180.0000	88.0000	0.3632	1.1880	-0.0018	0.0104	0.	-100.
Dislocation	242	13.1600	42.9000	2.0000	155.0000	60.0000	0.4831	1.3868	0.0059	0.0127	0.	-65.
Dislocation	243	13.2100	42.9300	3.0000	185.0000	85.0000	0.2138	0.8913	0.0051	0.0036	0.	-35.

## Supplementary Material

Dislocation	244	13.1900	42.6900	7.0000	167.0000	71.000	0.2483	0.9665	-0.0021	0.0069	0.	-107.
Dislocation	245	13.2000	42.9400	2.0000	165.0000	65.000	0.2922	1.0558	0.0015	0.0084	0.	-80.
Dislocation	246	13.2000	42.9300	2.0000	132.0000	50.000	0.2586	0.9881	-0.0029	0.0069	0.	-113.
Dislocation	247	13.0400	42.8400	7.0000	163.0000	67.000	0.2197	0.9045	-0.0012	0.0063	0.	-101.
Dislocation	248	13.1400	42.8000	6.0000	168.0000	56.000	0.3085	1.0874	-0.0011	0.0089	0.	-97.
Dislocation	249	13.2000	42.7700	3.0000	155.0000	50.000	0.1971	0.8527	0.0024	0.0052	0.	-65.
Dislocation	250	13.1000	42.8600	8.0000	40.0000	55.000	0.1998	0.8590	0.0037	0.0044	0.	-50.
Dislocation	251	13.0700	43.0600	5.0000	160.0000	55.000	0.4765	1.3766	0.0047	0.013	0.	-70.
Dislocation	252	13.1600	42.8200	6.0000	141.0000	86.000	0.2288	0.9247	-0.0028	-0.006	0.	115.
Dislocation	253	13.1700	42.7800	5.0000	83.0000	74.000	0.2053	0.8718	-0.0012	0.0058	0.	-102.
Dislocation	254	13.0500	42.8300	6.0000	150.0000	70.000	0.2730	1.0177	0.	0.0079	0.	-90.
Dislocation	255	13.2100	42.9200	3.0000	116.0000	58.000	0.1866	0.8279	-0.004	0.0036	0.	-137.9999
Dislocation	256	13.0700	43.0700	5.0000	160.0000	60.000	0.2621	0.9954	0.002	0.0074	0.	-75.
Dislocation	257	13.1000	42.8100	7.0000	107.0000	66.000	0.2109	0.8847	-0.0048	-0.0039	0.	141.0001
Dislocation	258	13.0700	42.8700	7.0000	126.0000	63.000	0.2449	0.9594	-0.0043	0.0057	0.	-127.
Dislocation	259	13.1600	42.8900	2.0000	128.0000	48.000	0.3887	1.2325	-0.0037	0.0107	0.	-109.
Dislocation	260	13.1800	42.9500	4.0000	170.0000	75.000	0.2197	0.9045	0.0052	-0.0037	0.	35.
Dislocation	261	13.1400	42.9100	6.0000	175.0000	50.000	0.4638	1.3564	0.0067	0.0117	0.	-60.
Dislocation	262	13.2100	42.8800	2.0000	130.0000	71.000	0.2621	0.9954	-0.0038	0.0066	0.	-120.
Dislocation	263	13.2100	42.9200	1.0000	145.0000	53.000	0.1607	0.7635	-0.0013	0.0045	0.	-106.
Dislocation	264	13.1500	42.7900	1.0000	175.0000	45.000	0.6784	1.6673	0.	0.0197	0.	-90.
Dislocation	265	13.1000	42.8100	5.0000	145.0000	70.000	0.3681	1.1967	0.0004	0.0107	0.	-88.
Dislocation	266	13.1500	42.8000	1.0000	166.0000	46.000	0.2288	0.9247	-0.0012	0.0065	0.	-100.

Dislocation	267	13.0900	42.8100	8.0000	155.0000	70.000	0.2109	0.8847	0.0031	-0.0053	0.	60.
Dislocation	268	13.2000	42.9300	4.0000	94.0000	67.000	0.3170	1.1036	-0.0082	-0.0042	0.	153.
Dislocation	269	13.1400	42.9400	6.0000	146.0000	57.000	0.3085	1.0874	-0.002	0.0087	0.	-103.
Dislocation	270	13.1600	42.8000	1.0000	177.0000	45.000	0.1652	0.7748	0.0004	0.0048	0.	-85.
Dislocation	271	13.1600	42.9100	1.0000	150.0000	50.000	0.3170	1.1036	0.0016	0.0091	0.	-80.
Dislocation	272	13.2000	42.9000	4.0000	110.0000	73.000	0.2320	0.9315	-0.0057	-0.0036	0.	147.9999
Dislocation	273	13.1900	42.8100	7.0000	175.0000	70.000	0.3732	1.2056	0.0037	0.0102	0.	-70.
Dislocation	274	13.2100	42.9200	4.0000	200.0000	65.000	0.2768	1.0252	0.0066	-0.0046	0.	35.
Dislocation	275	13.0500	42.9100	7.0000	120.0000	55.000	0.3258	1.1200	-0.0047	0.0082	0.	-120.
Dislocation	276	13.1800	42.7200	1.0000	165.0000	85.000	0.1841	0.8219	-0.0053	0.0005	0.	-175.
Dislocation	277	13.1200	42.7800	7.0000	159.0000	79.000	0.3887	1.2325	-0.0022	0.0111	0.	-101.
Dislocation	278	13.0900	42.8300	4.0000	147.0000	69.000	0.4452	1.3268	-0.011	-0.0068	0.	147.9999
Dislocation	279	13.1000	42.7800	7.0000	160.0000	85.000	0.2805	1.0328	0.0058	0.0058	0.	-45.
Dislocation	280	13.1900	42.7500	4.0000	116.0000	82.000	0.2081	0.8782	-0.0049	0.0035	0.	-145.
Dislocation	281	13.1900	42.7300	2.0000	175.0000	50.000	0.1744	0.7980	0.0017	0.0048	0.	-70.
Dislocation	282	13.1300	42.7500	7.0000	148.0000	74.000	0.3393	1.1450	-0.002	0.0096	0.	-102.
Dislocation	283	13.1300	42.7500	7.0000	148.0000	74.000	0.3393	1.1450	-0.002	0.0096	0.	-102.
Dislocation	284	13.1000	42.8000	7.0000	188.0000	67.000	0.2768	1.0252	-0.0013	0.0079	0.	-99.
Dislocation	285	13.1100	42.9900	2.0000	145.0000	65.000	0.1674	0.7805	0.0017	0.0046	0.	-70.
Dislocation	286	13.0400	42.7900	6.0000	155.0000	90.000	0.3534	1.1706	0.0027	0.0099	0.	-75.
Dislocation	287	13.1800	42.7400	6.0000	125.0000	60.000	0.2081	0.8782	0.003	0.0052	0.	-60.
Dislocation	288	13.1500	42.9000	2.0000	160.0000	60.000	0.3681	1.1967	0.0045	0.0097	0.	-65.
Dislocation	289	13.1200	42.7800	11.0000	91.0000	78.000	0.2483	0.9665	-0.0058	-0.0042	0.	144.

## Supplementary Material

Dislocation	290	13.1100	42.7800	7.0000	145.0000	85.0000	0.1971	0.8527	0.0024	0.0052	0.	-65.
Dislocation	291	13.0700	43.0700	5.0000	165.0000	60.0000	0.4513	1.3366	0.0045	0.0123	0.	-70.
Dislocation	292	13.3000	42.6200	5.0000	160.0000	65.0000	0.3994	1.2508	0.001	0.0116	0.	-85.
Dislocation	293	13.0500	42.8400	5.0000	72.0000	80.0000	0.2693	1.0102	-0.0076	-0.002	0.	165.
Dislocation	294	13.0900	42.7700	7.0000	174.0000	84.0000	0.8664	1.9037	-0.0061	0.0244	0.	-104.
Dislocation	295	13.1900	42.9500	2.0000	101.0000	58.0000	0.4897	1.3970	-0.0106	0.0095	0.	-137.9999
Dislocation	296	13.1900	42.7200	4.0000	163.0000	50.0000	0.1998	0.8590	-0.0004	0.0058	0.	-94.
Dislocation	297	13.1400	42.9400	7.0000	143.0000	66.0000	0.2320	0.9315	-0.0037	0.0056	0.	-123.
Dislocation	298	13.1900	42.8900	2.0000	150.0000	50.0000	0.2922	1.0558	0.0015	0.0084	0.	-80.
Dislocation	299	13.0600	42.8400	7.0000	160.0000	60.0000	0.3583	1.1792	0.	0.0104	0.	-90.
Dislocation	300	13.0700	42.7900	6.0000	147.0000	70.0000	0.2844	1.0404	-0.0021	0.008	0.	-105.
Dislocation	301	13.2100	42.7700	3.0000	132.0000	51.0000	0.2517	0.9736	-0.001	0.0072	0.	-98.
Dislocation	302	13.2100	42.7700	5.0000	129.0000	47.0000	0.5843	1.5374	-0.0044	0.0164	0.	-105.
Dislocation	303	13.1300	42.8400	5.0000	175.0000	70.0000	0.8095	1.8348	0.002	0.0234	0.	-85.
Dislocation	304	13.0800	43.0200	5.0000	165.0000	55.0000	0.3887	1.2325	0.0048	0.0102	0.	-65.
Dislocation	305	13.1400	42.8100	5.0000	148.0000	61.0000	0.3783	1.2145	-0.0011	0.0109	0.	-96.
Dislocation	306	13.1900	42.8100	7.0000	165.0000	75.0000	0.2922	1.0558	0.0036	0.0077	0.	-65.
Dislocation	307	13.1500	42.8200	7.0000	146.0000	66.0000	0.4104	1.2694	-0.0075	0.0093	0.	-129.
Dislocation	308	13.1100	42.9100	8.0000	109.0000	86.0000	0.1866	0.8279	-0.0038	0.0038	0.	-135.
Dislocation	309	13.2100	42.9000	2.0000	200.0000	50.0000	0.1792	0.8098	0.0026	0.0045	0.	-60.
Dislocation	310	13.0800	42.7700	7.0000	99.0000	87.0000	0.2351	0.9384	-0.0044	0.0052	0.	-130.
Dislocation	311	13.2700	42.6900	7.0000	160.0000	80.0000	0.2320	0.9315	0.0012	0.0066	0.	-80.
Dislocation	312	13.2200	42.9200	2.0000	165.0000	50.0000	0.2551	0.9808	0.0019	0.0072	0.	-75.

Dislocation	313	13.1300	43.0600	2.0000	131.0000	63.000	0.1918	0.8402	-0.0034	0.0044	0.	-127.
Dislocation	314	13.1400	42.7500	8.0000	143.0000	86.000	0.2517	0.9736	-0.006	0.0042	0.	-145.
Dislocation	315	13.1400	42.9000	5.0000	150.0000	55.000	0.3214	1.1117	0.0024	0.009	0.	-75.
Dislocation	316	13.0500	42.7700	6.0000	160.0000	75.000	0.2730	1.0177	0.0021	-0.0077	0.	75.
Dislocation	317	13.2000	42.9500	2.0000	150.0000	50.000	0.2883	1.0481	0.0015	0.0082	0.	-80.
Dislocation	318	13.1500	42.7400	1.0000	215.0000	65.000	0.2081	0.8782	0.0026	0.0055	0.	-65.
Dislocation	319	13.2100	42.9400	2.0000	125.0000	68.000	0.2351	0.9384	-0.0032	0.006	0.	-118.
Dislocation	320	13.1800	42.8900	4.0000	85.0000	73.000	0.2167	0.8978	-0.0053	-0.0033	0.	147.9999
Dislocation	321	13.0500	42.8100	7.0000	106.0000	73.000	0.2844	1.0404	-0.0035	0.0075	0.	-115.
Dislocation	322	13.2000	42.9500	1.0000	160.0000	50.000	0.2551	0.9808	0.0019	0.0072	0.	-75.
Dislocation	323	13.0800	42.8500	8.0000	151.0000	73.000	0.2257	0.9179	-0.0028	0.0059	0.	-115.
Dislocation	324	13.0600	42.9300	6.0000	146.0000	73.000	0.2167	0.8978	-0.0027	0.0057	0.	-115.
Dislocation	325	13.2200	42.6600	7.0000	134.0000	54.000	0.2922	1.0558	-0.0029	0.008	0.	-110.
Dislocation	326	13.0300	42.7700	7.0000	145.0000	90.000	0.1720	0.7921	-0.0021	0.0045	0.	-115.
Dislocation	327	13.3100	42.9100	17.0000	105.0000	68.000	0.4160	1.2788	-0.0057	0.0107	0.	-118.
Dislocation	328	13.1400	42.7800	6.0000	146.0000	46.000	0.2053	0.8718	-0.001	0.0059	0.	-100.
Dislocation	329	13.1400	43.0100	1.0000	147.0000	51.000	0.3302	1.1282	-0.0013	0.0095	0.	-98.
Dislocation	330	13.1400	43.0100	1.0000	146.0000	46.000	0.2621	0.9954	-0.0013	0.0075	0.	-100.
Dislocation	331	13.1600	43.0000	7.0000	110.0000	81.000	1.8793	2.8973	-0.0473	0.0273	0.	-150.
Dislocation	332	11.0100	43.6100	9.0000	180.0000	70.000	0.3085	1.0874	0.0078	-0.0045	0.	30.
Dislocation	333	13.2100	42.7300	5.0000	155.0000	60.000	0.2586	0.9881	0.0032	0.0068	0.	-65.
Dislocation	334	13.1500	42.6900	9.0000	110.0000	70.000	0.2288	0.9247	-0.0052	-0.0041	0.	142.
Dislocation	335	13.1600	42.9000	3.0000	113.0000	57.000	0.1998	0.8590	-0.0037	0.0044	0.	-130.

## Supplementary Material

Dislocation	336	13.1700	42.9100	1.0000	138.0000	45.0000	0.3632	1.1880	-0.0009	0.0105	0.	-95.
Dislocation	337	13.1100	42.8000	11.0000	106.0000	77.0000	0.2730	1.0177	-0.0049	0.0062	0.	-128.
Dislocation	338	13.2100	42.9300	2.0000	155.0000	45.0000	0.3128	1.0955	0.	0.0091	0.	-90.
Dislocation	339	13.1000	42.8000	7.0000	150.0000	55.0000	0.2768	1.0252	0.0034	0.0073	0.	-65.
Dislocation	340	13.1300	42.8100	8.0000	130.0000	75.0000	0.3440	1.1535	0.0042	0.0091	0.	-65.
Dislocation	341	13.2200	42.7300	6.0000	137.0000	73.0000	0.3302	1.1282	-0.003	0.0091	0.	-108.
Dislocation	342	13.0300	42.8000	7.0000	155.0000	80.0000	0.5313	1.4602	0.0027	0.0152	0.	-80.
Dislocation	343	13.1300	42.9100	5.0000	142.0000	69.0000	0.1971	0.8527	-0.0038	0.0043	0.	-131.
Dislocation	344	13.0600	43.0400	6.0000	136.0000	66.0000	0.1918	0.8402	-0.0017	0.0053	0.	-108.
Dislocation	345	13.0800	42.7800	6.0000	144.0000	85.0000	0.2621	0.9954	-0.0038	0.0066	0.	-120.
Dislocation	346	13.0600	43.0300	6.0000	145.0000	65.0000	0.3347	1.1366	0.	0.0097	0.	-90.
Dislocation	347	13.1700	42.8000	6.0000	111.0000	63.0000	0.2922	1.0558	-0.0051	0.0068	0.	-127.
Dislocation	348	13.1900	42.7100	5.0000	55.0000	60.0000	0.2551	0.9808	0.0057	0.0048	0.	-40.0001
Dislocation	349	13.1500	43.0000	1.0000	152.0000	45.0000	0.2109	0.8847	0.0005	0.0061	0.	-85.
Dislocation	350	13.2100	42.7800	3.0000	150.0000	60.0000	0.2416	0.9524	0.0035	0.0061	0.	-60.
Dislocation	351	13.1500	42.8800	7.0000	148.0000	56.0000	0.2730	1.0177	-0.0031	0.0073	0.	-113.
Dislocation	352	13.1500	42.8000	7.0000	59.0000	83.0000	0.1629	0.7691	-0.0015	0.0045	0.	-109.
Dislocation	353	13.0400	43.0300	6.0000	160.0000	65.0000	0.3044	1.0794	0.0015	0.0087	0.	-80.
Dislocation	354	13.1500	42.8900	5.0000	152.0000	48.0000	0.2197	0.9045	0.0021	0.006	0.	-71.
Dislocation	355	13.2100	42.9300	2.0000	195.0000	75.0000	0.2483	0.9665	0.0068	-0.0025	0.	20.
Dislocation	356	13.1500	42.9400	5.0000	148.0000	61.0000	0.3085	1.0874	-0.0012	0.0089	0.	-98.
Dislocation	357	13.0700	42.8800	1.0000	142.0000	51.0000	0.4897	1.3970	-0.002	0.0141	0.	-98.
Dislocation	358	13.2000	42.9000	2.0000	97.0000	86.0000	0.1522	0.7413	-0.0038	-0.0022	0.	150.



Dislocation	359	13.1900	42.8800	2.0000	134.0000	47.000	0.3170	1.1036	-0.0024	0.0089	0.	-105.
Dislocation	360	13.0600	43.0400	5.0000	160.0000	55.000	0.2320	0.9315	0.0023	0.0063	0.	-70.
Dislocation	361	13.0600	43.0400	5.0000	160.0000	55.000	0.2320	0.9315	0.0023	0.0063	0.	-70.
Dislocation	362	13.0500	43.0300	5.0000	144.0000	71.000	2.1237	3.0960	-0.0054	0.0614	0.	-95.
Dislocation	363	13.0700	42.8600	9.0000	185.0000	60.000	0.1720	0.7921	0.0009	0.0049	0.	-80.
Dislocation	364	13.3100	42.6600	2.0000	154.0000	65.000	0.2288	0.9247	-0.0006	0.0066	0.	-95.
Dislocation	365	13.0600	43.0200	5.0000	145.0000	70.000	0.2025	0.8654	0.	0.0059	0.	-90.
Dislocation	366	13.1500	42.9700	5.0000	155.0000	55.000	0.2805	1.0328	0.0047	0.0067	0.	-55.
Dislocation	367	13.1200	42.8300	6.0000	150.0000	55.000	0.3440	1.1535	0.	0.01	0.	-90.
Dislocation	368	13.2100	42.7800	4.0000	188.0000	67.000	0.2416	0.9524	-0.0013	0.0069	0.	-101.
Dislocation	369	13.2200	42.9100	2.0000	143.0000	57.000	0.3487	1.1620	-0.0065	0.0078	0.	-130.
Dislocation	370	13.2000	42.9200	2.0000	180.0000	55.000	0.2844	1.0404	0.0041	0.0072	0.	-60.
Dislocation	371	13.1800	42.6900	9.0000	147.0000	56.000	0.5764	1.5262	-0.0029	0.0165	0.	-100.
Dislocation	372	13.0800	42.9900	5.0000	153.0000	69.000	0.3534	1.1706	-0.0023	0.01	0.	-103.
Dislocation	373	13.0600	43.0300	6.0000	137.0000	56.000	0.2483	0.9665	-0.0013	0.0071	0.	-100.
Dislocation	374	13.0500	43.0200	5.0000	158.0000	77.000	0.2320	0.9315	-0.0019	0.0065	0.	-106.
Dislocation	375	13.1100	42.7900	7.0000	184.0000	84.000	0.2449	0.9594	-0.0029	0.0065	0.	-114.
Dislocation	376	13.0500	42.7600	7.0000	130.0000	53.000	0.2517	0.9736	-0.002	0.007	0.	-106.
Dislocation	377	13.1000	42.8700	7.0000	133.0000	61.000	0.1944	0.8464	-0.0038	0.0042	0.	-132.
Dislocation	378	13.0700	42.8700	7.0000	149.0000	66.000	0.2883	1.0481	-0.001	0.0083	0.	-97.
Dislocation	379	13.2100	42.6800	9.0000	127.0000	54.000	0.2768	1.0252	-0.0048	0.0064	0.	-127.
Dislocation	380	13.1600	42.9000	2.0000	140.0000	60.000	0.1971	0.8527	0.	0.0057	0.	-90.
Dislocation	381	13.1400	42.7800	6.0000	143.0000	56.000	0.2167	0.8978	-0.0008	0.0062	0.	-97.
Dislocation	382	13.0700	43.0100	5.0000	152.0000	45.000	0.2138	0.8913	0.0005	0.0062	0.	-85.

## Supplementary Material

Dislocation	383	13.1300	42.8700	3.0000	102.0000	54.000	0.2517	0.9736	-0.0044	0.0058	0.	-127.
Dislocation	384	13.1300	42.9800	3.0000	190.0000	65.000	0.1697	0.7863	0.0043	0.0025	0.	-30.
Dislocation	385	13.1300	42.7900	6.0000	152.0000	56.000	0.3347	1.1366	0.0012	0.0096	0.	-83.
Dislocation	386	13.2300	42.8300	11.0000	135.0000	75.000	0.2320	0.9315	0.0043	0.0052	0.	-50.
Dislocation	387	13.1300	42.8800	3.0000	175.0000	65.000	0.1720	0.7921	0.0009	0.0049	0.	-80.
Dislocation	388	13.0600	43.0600	5.0000	141.0000	52.000	0.1944	0.8464	-0.0012	0.0055	0.	-102.
Dislocation	389	13.1500	42.7000	8.0000	145.0000	80.000	0.2483	0.9665	0.0013	0.0071	0.	-80.
Dislocation	390	13.1800	42.6800	7.0000	128.0000	51.000	0.2053	0.8718	-0.0033	0.0049	0.	-124.
Dislocation	391	13.1900	42.9100	2.0000	129.0000	64.000	0.2483	0.9665	-0.0029	0.0066	0.	-114.
Dislocation	392	13.2100	42.9400	1.0000	170.0000	60.000	0.2693	1.0102	0.002	0.0076	0.	-75.
Dislocation	393	13.2300	42.9500	1.0000	155.0000	55.000	0.4765	1.3766	-0.0012	0.0138	0.	-95.
Dislocation	394	13.2200	42.9500	1.0000	155.0000	55.000	0.2483	0.9665	0.0019	0.007	0.	-75.
Dislocation	395	13.1800	42.7900	7.0000	102.0000	62.000	0.1971	0.8527	-0.0043	0.0038	0.	-139.
Dislocation	396	13.1300	42.9800	2.0000	147.0000	50.000	0.3302	1.1282	-0.0037	0.0088	0.	-113.
Dislocation	397	13.1900	42.7500	2.0000	159.0000	55.000	0.3258	1.1200	-0.0005	0.0094	0.	-93.
Dislocation	398	13.2000	42.9500	1.0000	155.0000	60.000	0.2922	1.0558	0.0029	0.008	0.	-70.
Dislocation	399	13.2200	42.9400	2.0000	175.0000	70.000	0.1792	0.8098	0.0018	0.0049	0.	-70.
Dislocation	400	13.1900	42.7300	5.0000	180.0000	50.000	0.3681	1.1967	0.0053	0.0093	0.	-60.
Dislocation	402	13.2100	42.9500	2.0000	120.0000	55.000	0.2351	0.9384	-0.0034	0.0059	0.	-120.
Dislocation	403	13.0600	43.0600	5.0000	131.0000	64.000	0.4964	1.4073	-0.004	0.0139	0.	-106.
Dislocation	404	13.2000	42.7800	4.0000	135.0000	65.000	0.2551	0.9808	0.0037	0.0064	0.	-60.
Dislocation	405	13.1900	42.8100	6.0000	140.0000	65.000	0.3732	1.2056	0.0028	0.0105	0.	-75.
Dislocation	406	13.1900	42.8800	2.0000	150.0000	50.000	0.2383	0.9454	0.0006	0.0069	0.	-85.

Dislocation	407	13.0800	42.8700	9.0000	197.0000	77.000	0.2768	1.0252	-0.0022	-0.0077	0.	106.
Dislocation	408	13.1400	43.0200	2.0000	152.0000	50.000	0.2962	1.0637	0.0006	0.0086	0.	-86.
Dislocation	409	13.1800	42.9000	1.0000	128.0000	50.000	0.1481	0.7305	-0.0003	0.0043	0.	-94.
Dislocation	410	13.1500	42.8900	9.0000	146.0000	64.000	0.5764	1.5262	-0.0046	0.0161	0.	-106.
Dislocation	411	13.1800	42.9000	2.0000	149.0000	66.000	0.2167	0.8978	-0.0028	0.0057	0.	-116.
Dislocation	412	13.0400	42.8300	7.0000	148.0000	73.000	0.2883	1.0481	-0.0015	0.0082	0.	-100.
Dislocation	413	12.7700	42.8100	7.0000	110.0000	70.000	0.3347	1.1366	0.0056	0.008	0.	-55.
Dislocation	414	13.2500	42.5500	3.0000	165.0000	55.000	0.2257	0.9179	0.	0.0066	0.	-90.
Dislocation	415	13.1500	43.0000	2.0000	160.0000	45.000	0.3583	1.1792	0.	0.0104	0.	-90.
Dislocation	416	13.1600	43.0000	2.0000	149.0000	54.000	0.2081	0.8782	-0.0021	0.0057	0.	-110.
Dislocation	417	13.1900	42.6600	9.0000	180.0000	50.000	0.4831	1.3868	0.007	0.0121	0.	-60.
Dislocation	418	13.1800	42.7300	9.0000	185.0000	55.000	0.3128	1.0955	0.0016	0.0089	0.	-80.
Dislocation	419	13.1300	42.8900	3.0000	179.0000	65.000	0.3887	1.2325	-0.0004	0.0113	0.	-92.
Dislocation	420	13.0500	42.7800	7.0000	135.0000	90.000	0.3393	1.1450	0.0017	0.0097	0.	-80.
Dislocation	421	13.1800	42.9000	2.0000	138.0000	56.000	0.1971	0.8527	-0.0007	0.0057	0.	-97.
Dislocation	422	13.1300	43.0000	2.0000	160.0000	50.000	0.5764	1.5262	0.0015	0.0167	0.	-85.
Dislocation	423	13.1400	42.9900	2.0000	165.0000	50.000	0.4513	1.3366	0.0023	0.0129	0.	-80.
Dislocation	424	13.2100	42.7200	5.0000	151.0000	46.000	0.9528	2.0045	-0.0048	0.0272	0.	-100.
Dislocation	425	13.2000	42.9400	1.0000	175.0000	60.000	0.1892	0.8341	0.0005	0.0055	0.	-85.
Dislocation	426	13.0700	43.0300	5.0000	165.0000	65.000	0.2081	0.8782	0.001	0.0059	0.	-80.
Dislocation	427	13.1400	42.8000	6.0000	175.0000	50.000	0.4392	1.3170	0.	0.0128	0.	-90.
Dislocation	428	13.2100	42.9200	3.0000	105.0000	76.000	0.2657	1.0028	-0.0072	0.0028	0.	-159.
Dislocation	429	13.1000	42.8200	8.0000	190.0000	65.000	0.2288	0.9247	0.0012	0.0065	0.	-80.

## Supplementary Material

Dislocation	430	13.1000	42.8200	10.0000	143.0000	71.000	0.2197	0.9045	-0.006	-0.0023	0.	159.
Dislocation	431	13.2300	42.5500	3.0000	140.0000	60.000	0.2693	1.0102	-0.0025	0.0074	0.	-109.
Dislocation	432	13.0900	42.9500	6.0000	135.0000	55.000	0.2844	1.0404	-0.0041	0.0072	0.	-120.
Dislocation	433	13.1600	42.8600	8.0000	144.0000	64.000	0.7066	1.7045	-0.0083	0.0187	0.	-114.
Dislocation	434	13.0600	43.0100	5.0000	170.0000	60.000	0.2586	0.9881	0.0026	0.0071	0.	-70.
Dislocation	435	13.0600	42.9800	6.0000	155.0000	80.000	0.2621	0.9954	0.0004	0.0076	0.	-87.
Dislocation	436	13.1500	42.9400	9.0000	161.0000	52.000	0.5313	1.4602	-0.0032	0.0151	0.	-102.
Dislocation	437	13.0700	43.0300	3.0000	160.0000	55.000	0.2138	0.8913	0.0021	0.0058	0.	-70.
Dislocation	438	13.0800	43.0300	5.0000	141.0000	55.000	0.2844	1.0404	0.0004	0.0082	0.	-87.
Dislocation	439	13.2100	42.7500	5.0000	175.0000	50.000	0.2693	1.0102	0.	0.0078	0.	-90.
Dislocation	440	13.1100	43.0400	2.0000	99.0000	64.000	0.1792	0.8098	-0.0043	-0.0029	0.	146.
Dislocation	441	13.1300	42.8000	7.0000	125.0000	80.000	0.6339	1.6069	0.0048	0.0178	0.	-75.
Dislocation	442	13.1000	43.0300	2.0000	185.0000	85.000	0.1697	0.7863	0.004	0.0028	0.	-35.
Dislocation	443	13.2000	42.7700	10.0000	134.0000	76.000	0.3302	1.1282	-0.0065	0.007	0.	-133.
Dislocation	444	13.0700	43.0100	6.0000	145.0000	55.000	0.2883	1.0481	0.	0.0084	0.	-90.
Dislocation	445	13.1900	42.8600	4.0000	66.0000	72.000	0.2383	0.9454	-0.0062	-0.003	0.	154.
Dislocation	446	13.2200	42.6400	8.0000	180.0000	73.000	0.2962	1.0637	-0.0073	0.0046	0.	-147.9999
Dislocation	447	13.1600	42.9500	9.0000	168.0000	61.000	0.2657	1.0028	-0.0008	0.0077	0.	-96.
Dislocation	448	9.7900	44.4300	4.0000	143.0000	56.000	0.2730	1.0177	-0.001	0.0079	0.	-97.
Dislocation	449	13.0800	43.0100	5.0000	150.0000	55.000	0.2351	0.9384	0.0018	0.0066	0.	-75.
Dislocation	450	13.0800	43.0200	4.0000	135.0000	50.000	0.1971	0.8527	0.0005	0.0057	0.	-85.
Dislocation	451	13.1300	43.0100	2.0000	141.0000	46.000	0.1744	0.7980	-0.0009	0.005	0.	-100.

Dislocation	452	13.1200	42.8400	5.0000	154.0000	55.000	0.3994	1.2508	-0.0006	0.0116	0.	-93.
Dislocation	453	13.1500	42.9300	2.0000	170.0000	60.000	0.2657	1.0028	0.0055	0.0055	0.	-45.
Dislocation	454	13.1000	43.0500	3.0000	195.0000	90.000	0.1816	0.8158	0.0051	0.0014	0.	-15.
Dislocation	455	13.1000	43.0500	3.0000	190.0000	85.000	0.2621	0.9954	0.0075	-0.0013	0.	10.
Dislocation	456	13.2800	42.7200	10.0000	142.0000	76.000	0.2693	1.0102	-0.0028	0.0073	0.	-111.
Dislocation	457	13.0800	43.0200	5.0000	150.0000	55.000	0.2551	0.9808	0.0025	0.007	0.	-70.
Dislocation	458	13.1500	42.9900	2.0000	160.0000	55.000	0.1607	0.7635	0.0012	0.0045	0.	-75.
Dislocation	459	12.9400	42.8600	3.0000	80.0000	90.000	0.2483	0.9665	-0.0065	0.003	0.	-155.
Dislocation	460	13.2100	42.8000	5.0000	140.0000	55.000	0.3534	1.1706	0.0043	0.0093	0.	-65.
Dislocation	461	13.0700	43.0100	5.0000	155.0000	65.000	0.2517	0.9736	0.0019	0.0071	0.	-75.
Dislocation	462	13.0700	43.0100	3.0000	155.0000	55.000	0.2449	0.9594	0.0046	0.0054	0.	-50.
Dislocation	463	13.0800	43.0200	5.0000	145.0000	50.000	0.4765	1.3766	0.0047	0.013	0.	-70.
Dislocation	464	13.0800	43.0200	5.0000	143.0000	45.000	0.5241	1.4494	-0.0013	0.0152	0.	-95.
Dislocation	465	13.0700	43.0200	4.0000	154.0000	47.000	0.2197	0.9045	-0.0017	0.0062	0.	-105.
Dislocation	466	13.0700	43.0200	4.0000	130.0000	55.000	0.2025	0.8654	-0.0005	0.0059	0.	-95.
Dislocation	467	13.0700	43.0200	5.0000	131.0000	46.000	0.6877	1.6796	-0.0035	0.0197	0.	-100.
Dislocation	468	13.2200	42.6500	8.0000	129.0000	76.000	0.2657	1.0028	-0.0069	-0.0034	0.	154.
Dislocation	469	12.7600	42.8100	5.0000	100.0000	65.000	0.2730	1.0177	0.004	0.0069	0.	-60.
Dislocation	470	13.0700	43.0200	5.0000	136.0000	46.000	0.4897	1.3970	-0.0025	0.014	0.	-100.
Dislocation	471	13.0700	43.0200	5.0000	143.0000	61.000	0.3783	1.2145	-0.0015	0.0109	0.	-98.
Dislocation	472	13.0700	43.0200	5.0000	155.0000	50.000	0.4104	1.2694	0.0041	0.0112	0.	-70.
Dislocation	473	12.7800	42.8100	5.0000	85.0000	50.000	0.3440	1.1535	0.0017	0.0098	0.	-80.
Dislocation	474	13.2400	42.7600	7.0000	155.0000	55.000	0.4104	1.2694	0.001	0.0119	0.	-85.

## Supplementary Material

Dislocation	475	13.1200	43.0200	2.0000	155.0000	50.0000	0.2320	0.9315	0.0012	0.0066	0.	-80.
Dislocation	476	13.2900	42.5300	7.0000	154.0000	71.0000	1.3201	2.3922	-0.0033	0.0382	0.	-95.
Dislocation	477	13.2500	42.7500	9.0000	164.0000	86.0000	0.2227	0.9112	-0.0027	0.0059	0.	-115.
Dislocation	478	13.0800	43.0000	5.0000	148.0000	56.0000	0.7878	1.8080	-0.0028	0.0227	0.	-97.
Dislocation	479	13.0700	43.0400	6.0000	167.0000	56.0000	0.2657	1.0028	0.0009	0.0077	0.	-83.
Dislocation	480	13.0700	43.0400	6.0000	145.0000	50.0000	0.2320	0.9315	0.	0.0067	0.	-90.
Dislocation	481	13.1400	43.0100	2.0000	147.0000	51.0000	0.2109	0.8847	-0.0009	0.0061	0.	-98.
Dislocation	482	13.0800	42.9900	5.0000	150.0000	60.0000	0.2730	1.0177	0.0007	0.0079	0.	-85.
Dislocation	483	13.0600	43.0100	5.0000	127.0000	62.0000	0.2586	0.9881	-0.0014	0.0074	0.	-101.
Dislocation	484	13.1000	43.0400	3.0000	190.0000	90.0000	0.3170	1.1036	0.0091	0.0016	0.	-10.
Dislocation	485	13.2900	42.5600	6.0000	155.0000	55.0000	0.2621	0.9954	0.0007	0.0076	0.	-85.
Dislocation	486	15.8200	40.5400	10.0000	108.0000	56.0000	0.5686	1.5150	-0.0064	0.0152	0.	-113.
Dislocation	487	13.1600	42.8800	5.0000	134.0000	71.0000	0.1792	0.8098	-0.0031	0.0042	0.	-126.
Dislocation	488	13.0100	42.8300	1.0000	97.0000	54.0000	0.1971	0.8527	-0.0034	0.0046	0.	-127.
Dislocation	489	13.0700	43.0100	5.0000	142.0000	51.0000	0.1918	0.8402	-0.0008	0.0055	0.	-98.
Dislocation	490	13.0900	43.0500	3.0000	175.0000	65.0000	0.1944	0.8464	0.004	0.004	0.	-45.
Dislocation	491	13.2200	42.8700	7.0000	90.0000	60.0000	0.1998	0.8590	0.	0.0058	0.	-90.
Dislocation	492	13.2800	42.5600	6.0000	139.0000	66.0000	0.2551	0.9808	-0.0009	0.0074	0.	-97.
Dislocation	493	13.0300	42.8400	7.0000	145.0000	70.0000	0.3003	1.0715	0.	0.0087	0.	-90.
Dislocation	494	13.0700	43.0200	5.0000	165.0000	65.0000	0.3732	1.2056	0.0077	0.0077	0.	-45.
Dislocation	495	10.5000	44.3300	6.0000	170.0000	50.0000	0.6602	1.6429	0.0081	0.0174	0.	-65.
Dislocation	496	13.0700	43.0200	5.0000	123.0000	48.0000	0.3085	1.0874	-0.0029	0.0085	0.	-109.
Dislocation	497	13.0700	43.0200	4.0000	144.0000	54.0000	0.2197	0.9045	-0.0022	0.006	0.	-110.

Dislocation	498	13.1100	42.9000	3.0000	205.0000	65.000	0.8902	1.9320	0.0088	0.0243	0.	-70.
Dislocation	499	14.7300	38.0600	7.0000	50.0000	90.000	0.3393	1.1450	0.0057	-0.0081	0.	55.
Dislocation	500	13.0400	42.7400	8.0000	150.0000	70.000	0.3681	1.1967	0.0009	0.0106	0.	-85.
Dislocation	501	13.0700	42.9900	5.0000	159.0000	71.000	0.3681	1.1967	-0.0009	0.0106	0.	-95.
Dislocation	502	13.3000	42.6500	3.0000	154.0000	60.000	0.5459	1.4818	-0.0008	0.0158	0.	-93.
Dislocation	503	13.0700	43.0200	5.0000	150.0000	55.000	0.2962	1.0637	0.0007	0.0086	0.	-85.
Dislocation	504	13.0600	43.0200	5.0000	155.0000	55.000	0.4104	1.2694	0.0031	0.0115	0.	-75.
Dislocation	505	13.0600	43.0200	5.0000	160.0000	60.000	0.3085	1.0874	0.0023	0.0087	0.	-75.
Dislocation	506	13.2700	42.5600	6.0000	145.0000	50.000	0.2730	1.0177	0.0007	0.0079	0.	-85.
Dislocation	507	13.1600	42.9300	2.0000	104.0000	60.000	0.2320	0.9315	-0.0055	0.0039	0.	-145.
Dislocation	508	13.1600	42.9200	2.0000	175.0000	70.000	0.3302	1.1282	0.0055	0.0079	0.	-55.
Dislocation	509	13.2000	42.9300	2.0000	170.0000	55.000	0.2805	1.0328	0.0041	0.0071	0.	-60.
Dislocation	510	13.1700	42.9200	2.0000	175.0000	70.000	0.2138	0.8913	0.0051	0.0036	0.	-35.
Dislocation	511	13.1500	42.7800	6.0000	145.0000	53.000	0.2768	1.0252	-0.0022	0.0077	0.	-106.
Dislocation	512	13.2000	42.9200	2.0000	143.0000	48.000	0.3783	1.2145	-0.0036	0.0104	0.	-109.
Dislocation	513	12.7500	42.8000	4.0000	72.0000	85.000	0.7360	1.7426	-0.0194	0.009	0.	-155.
Dislocation	514	13.2400	42.5700	3.0000	180.0000	70.000	0.2053	0.8718	0.0042	0.0042	0.	-45.
Dislocation	515	13.1100	43.0100	1.0000	140.0000	65.000	0.1481	0.7305	0.0011	0.0042	0.	-75.
Dislocation	516	13.0700	42.9700	5.0000	113.0000	66.000	0.2730	1.0177	-0.0043	0.0066	0.	-123.
Dislocation	517	13.2700	42.4400	7.0000	118.0000	51.000	0.3003	1.0715	-0.0049	0.0072	0.	-124.
Dislocation	518	13.2700	42.4300	7.0000	105.0000	70.000	0.2109	0.8847	-0.0048	0.0038	0.	-142.
Dislocation	519	13.2800	42.4200	7.0000	108.0000	66.000	0.3994	1.2508	-0.009	0.0073	0.	-141.0001
Dislocation	520	13.0700	43.0800	5.0000	175.0000	60.000	0.3487	1.1620	0.0051	0.0088	0.	-60.

**4.4 Table S4.** Catalog of the events used in this study (uploaded as a separate file).