Supplementary Material: A Brazilian Seismic Acceleration Database and GMPE Weighting for PSHA Studies

S1 Normalized Residual Distributions for All NGA-East Models

Figures S1–S18 show the histogram and empirical kernel density estimate (KDE) of normalized residuals (Z-scores) for each of the 17 USGS NGA-East models and the NGA-East Graizer model evaluated against the Brazilian PGA dataset. The solid black line represents the empirical KDE computed from the residuals, while the dashed gray line corresponds to the standard normal distribution N(0,1), which represents the theoretical target for a perfectly calibrated model.

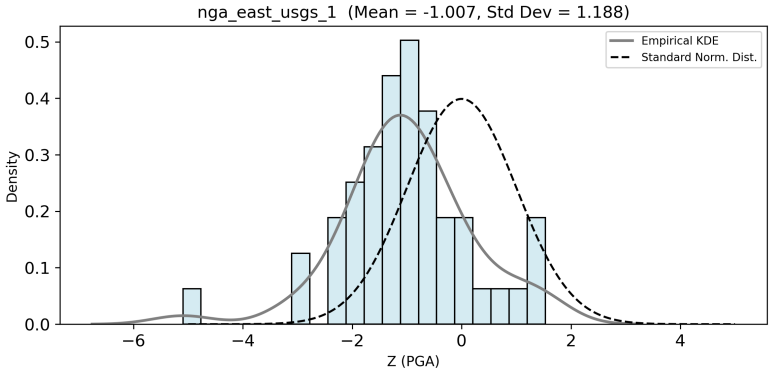

Fig. 1 Figure S1. Histogram and empirical KDE of normalized residuals (Z-scores) for model USGS_1.

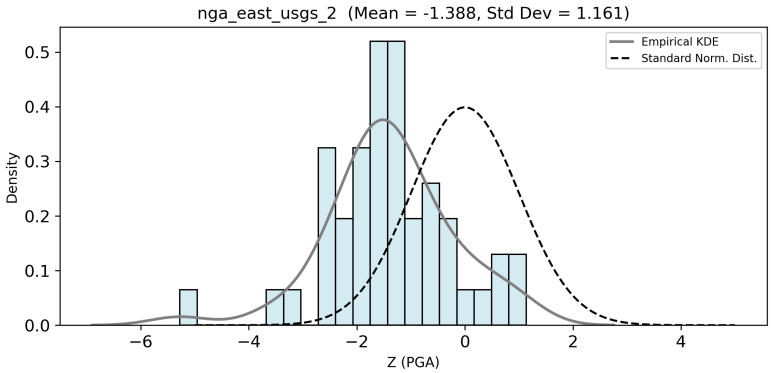

Fig. 2 Figure S2. Histogram and empirical KDE of normalized residuals (Z-scores) for model USGS_2.

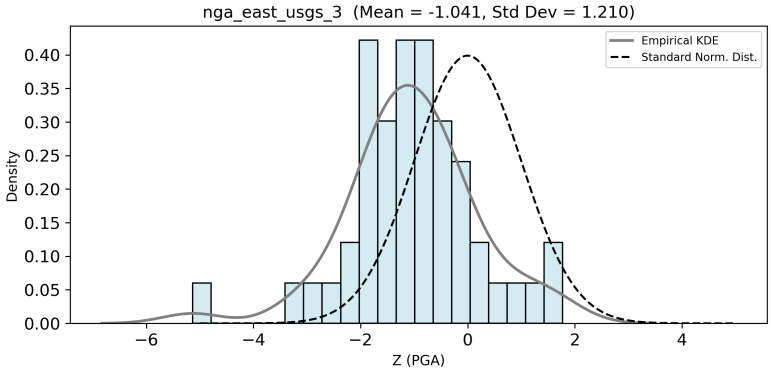

Fig. 3 Figure S3. Histogram and empirical KDE of normalized residuals (Z-scores) for model USGS_3.

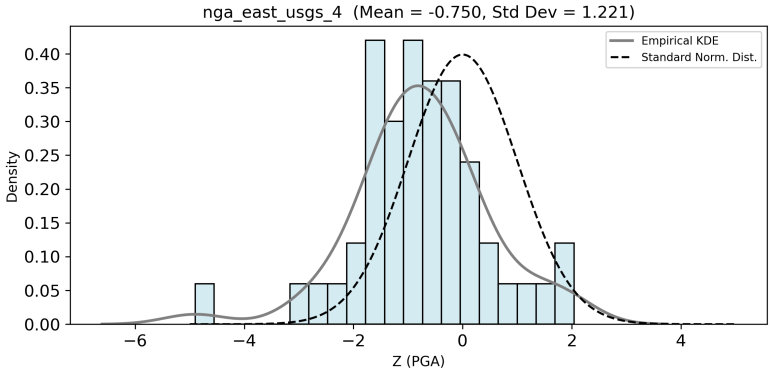

Fig. 4 Figure S4. Histogram and empirical KDE of normalized residuals (Z-scores) for model USGS_4.

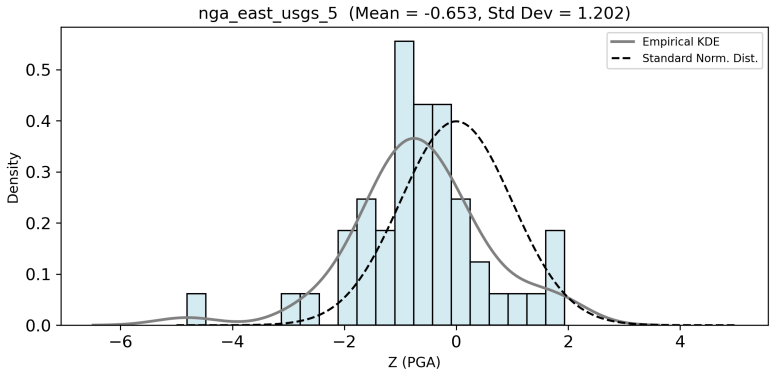

Fig. 5 Figure S5. Histogram and empirical KDE of normalized residuals (Z-scores) for model USGS_5.

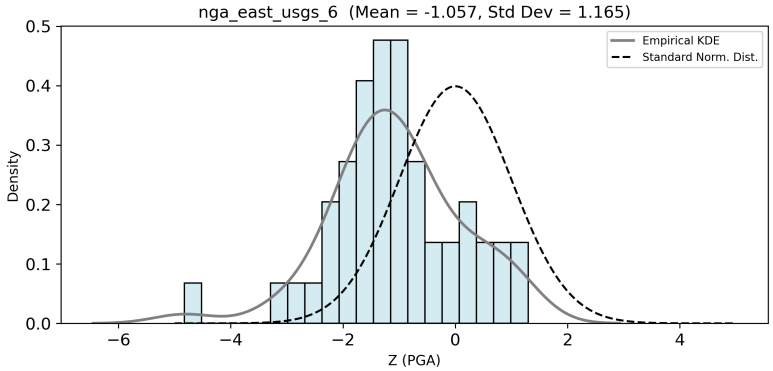

Fig. 6 Figure S6. Histogram and empirical KDE of normalized residuals (Z-scores) for model USGS_6.

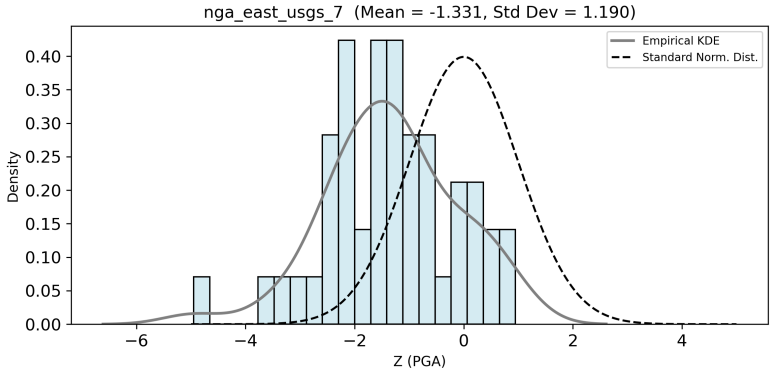

Fig. 7 Figure S7. Histogram and empirical KDE of normalized residuals (Z-scores) for model USGS_7.

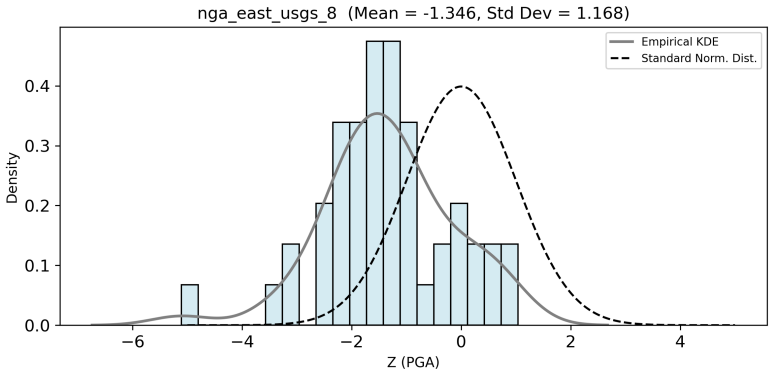

Fig. 8 Figure S8. Histogram and empirical KDE of normalized residuals (Z-scores) for model USGS_8.

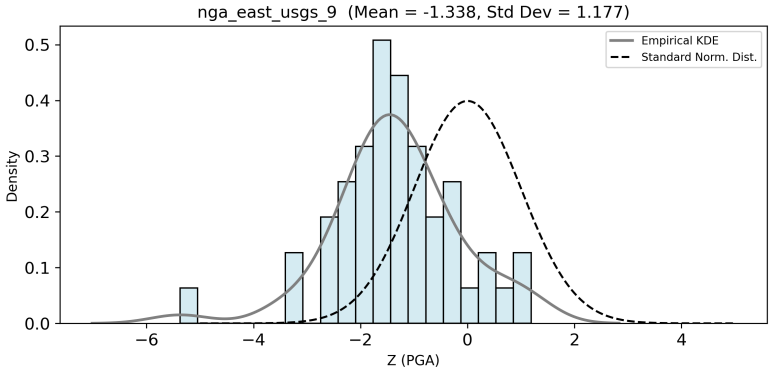

Fig. 9 Figure S9. Histogram and empirical KDE of normalized residuals (Z-scores) for model USGS_9.

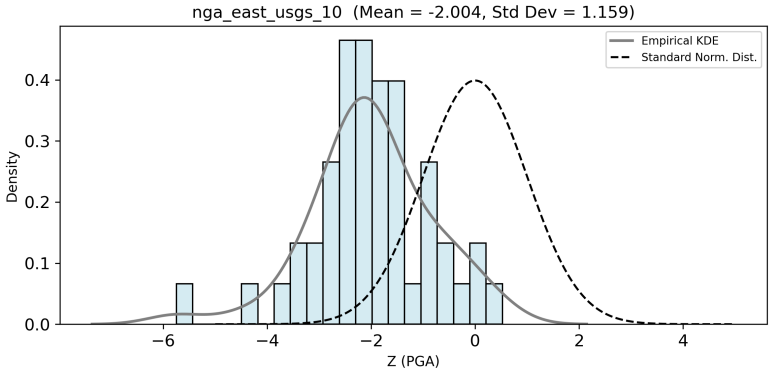

Fig. 10 Figure S10. Histogram and empirical KDE of normalized residuals (Z-scores) for model USGS_10.

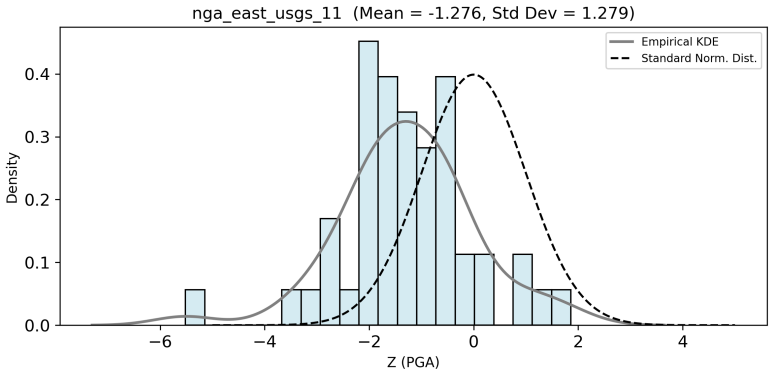

Fig. 11 Figure S11. Histogram and empirical KDE of normalized residuals (Z-scores) for model USGS_11.

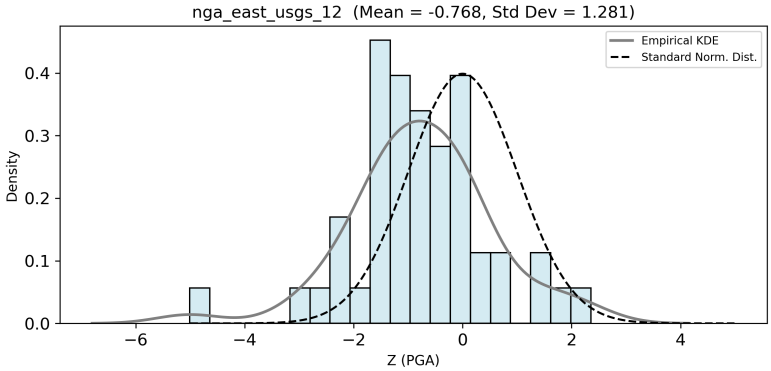

Fig. 12 Figure S12. Histogram and empirical KDE of normalized residuals (Z-scores) for model USGS_12.

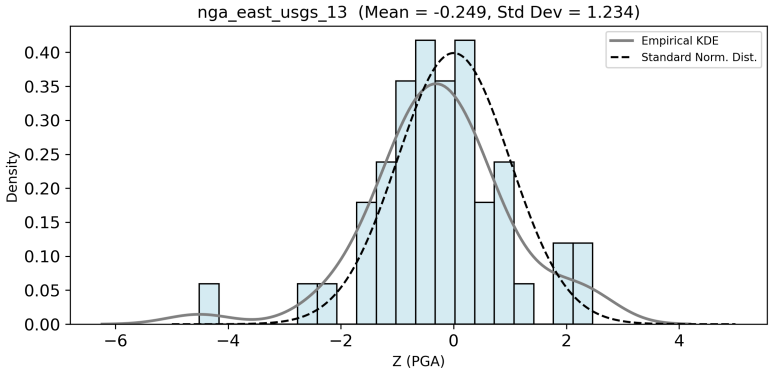

Fig. 13 Figure S13. Histogram and empirical KDE of normalized residuals (Z-scores) for model USGS_13.

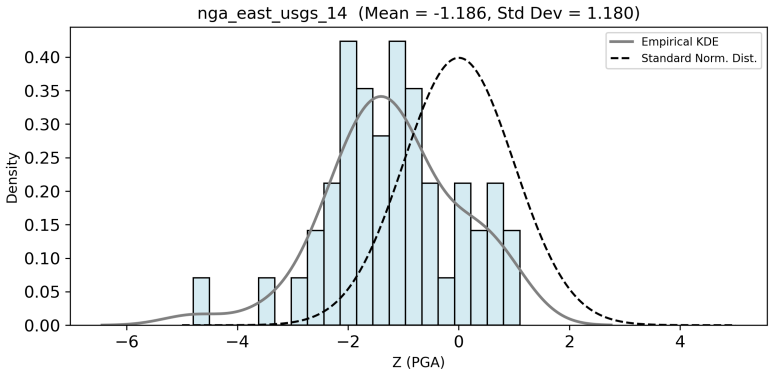

Fig. 14 Figure S14. Histogram and empirical KDE of normalized residuals (Z-scores) for model USGS_14.

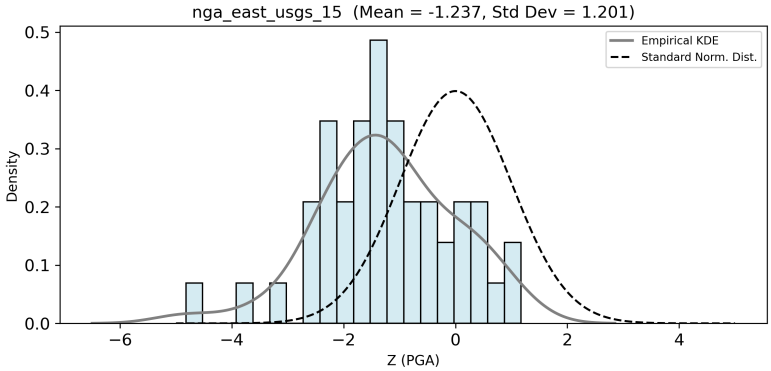

Fig. 15 Figure S15. Histogram and empirical KDE of normalized residuals (Z-scores) for model USGS_15.

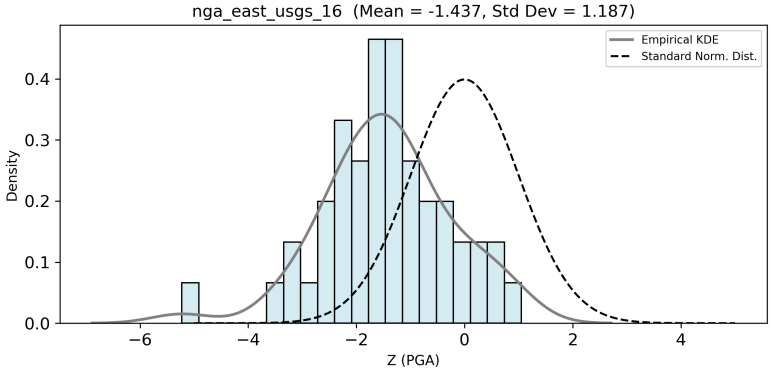

Fig. 16 Figure S16. Histogram and empirical KDE of normalized residuals (Z-scores) for model USGS_16.

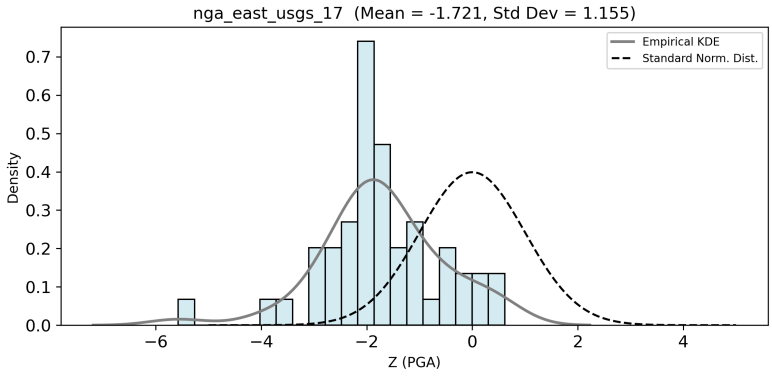

Fig. 17 Figure S17. Histogram and empirical KDE of normalized residuals (Z-scores) for model USGS_17.

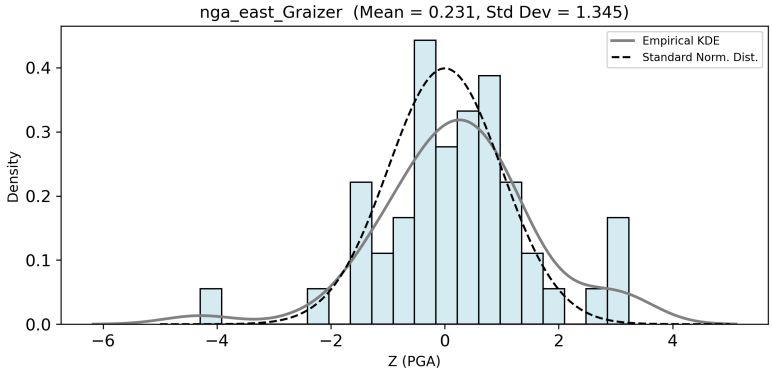

Fig. 18 Figure S18. Histogram and empirical KDE of normalized residuals (Z-scores) for the NGA-East Graizer model.

S2 Subgroup Residual Analysis for All NGA-East Models

Figures S19–S36 show the normalized residuals (Z-scores) as a function of moment magnitude (Mw), shear-wave velocity (Vs30), and rupture distance (Rrup) for each evaluated model. Gray circles represent individual residuals, while blue squares indicate mean values within bins. Background shading shows the bin ranges used in the subgroup RMS analysis.

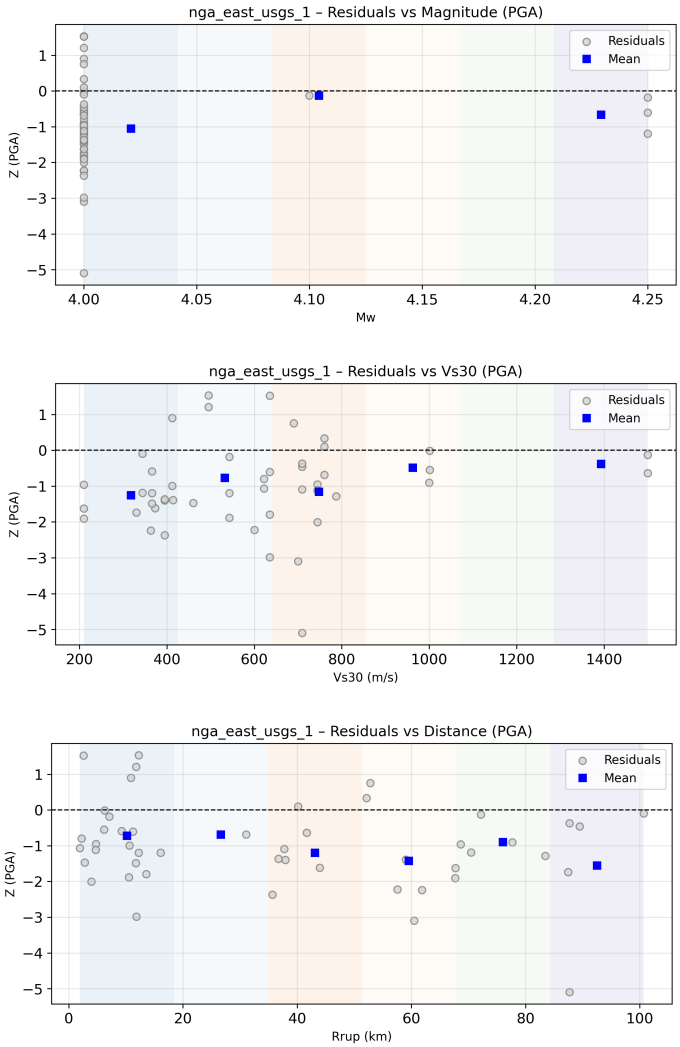

Fig. 19 Figure S19. Normalized residuals (Z-scores) as a function of Mw (top), Vs30 (middle), and rupture distance (bottom) for model USGS_1.

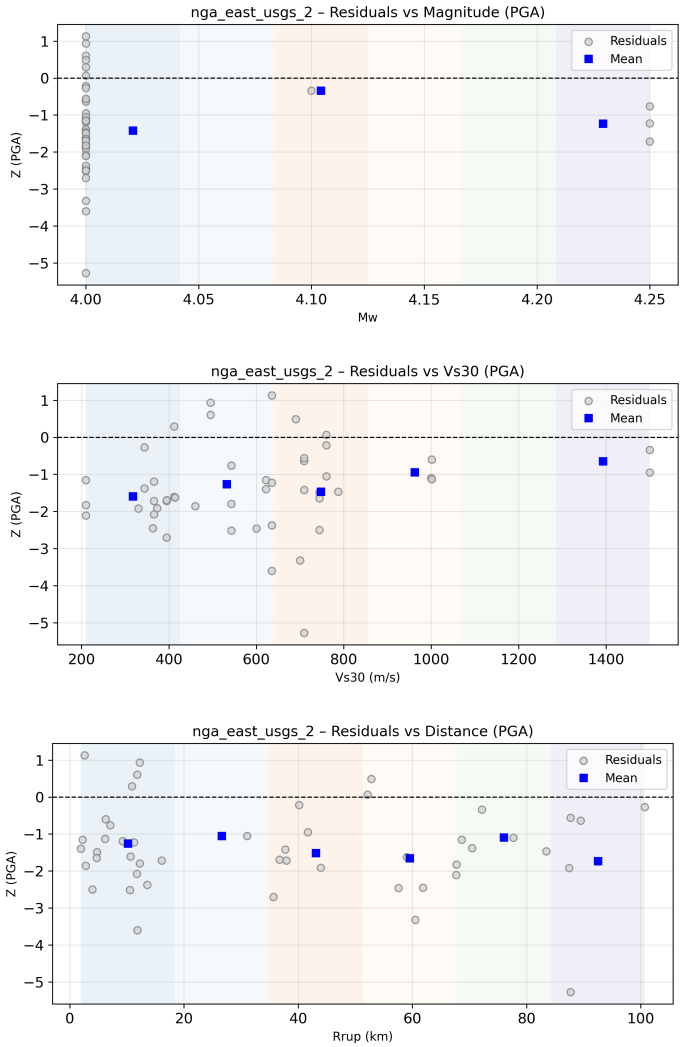

Fig. 20 Figure S20. Normalized residuals (Z-scores) as a function of Mw (top), Vs30 (middle), and rupture distance (bottom) for model USGS_2.

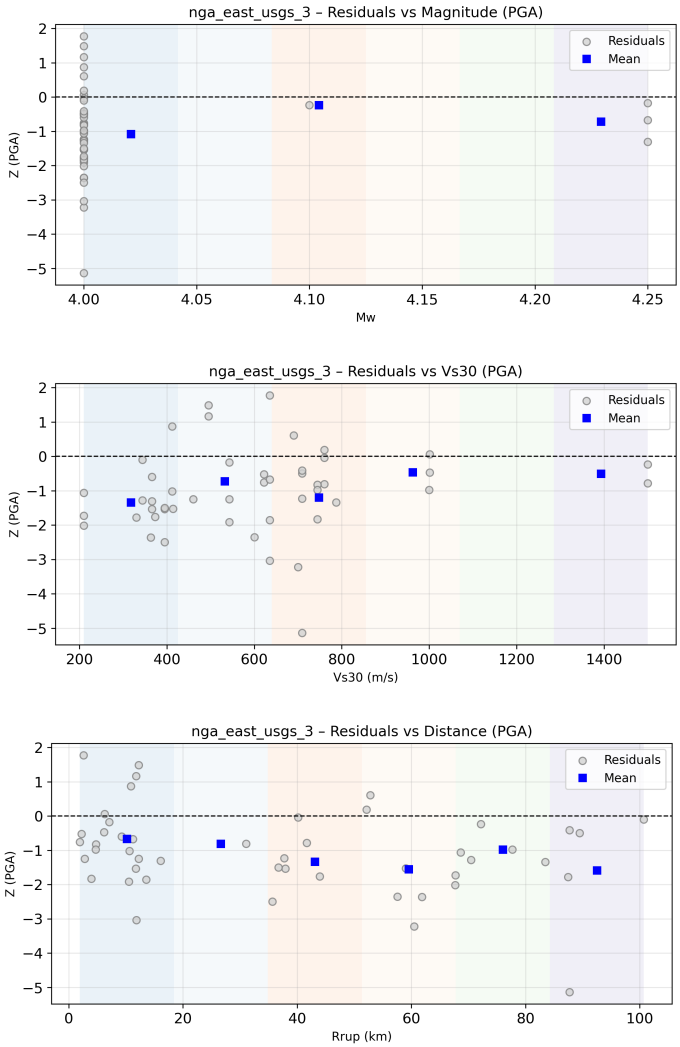

Fig. 21 Figure S21. Normalized residuals (Z-scores) as a function of Mw (top), Vs30 (middle), and rupture distance (bottom) for model USGS_3.

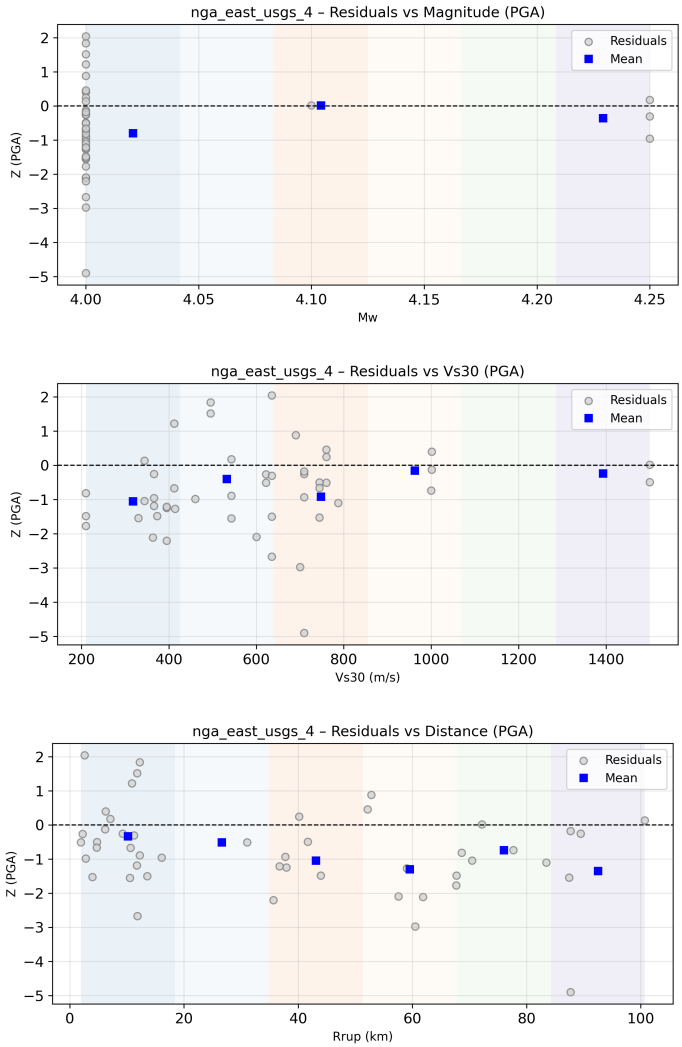

Fig. 22 Figure S22. Normalized residuals (Z-scores) as a function of Mw (top), Vs30 (middle), and rupture distance (bottom) for model USGS_4.

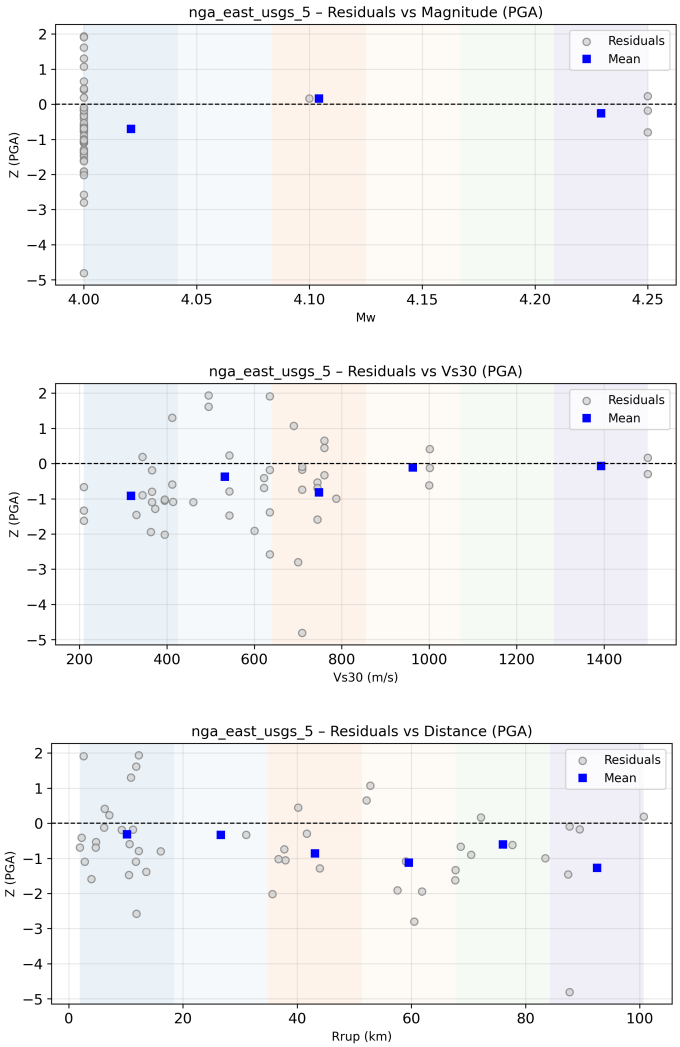

Fig. 23 Figure S23. Normalized residuals (Z-scores) as a function of Mw (top), Vs30 (middle), and rupture distance (bottom) for model USGS_5.

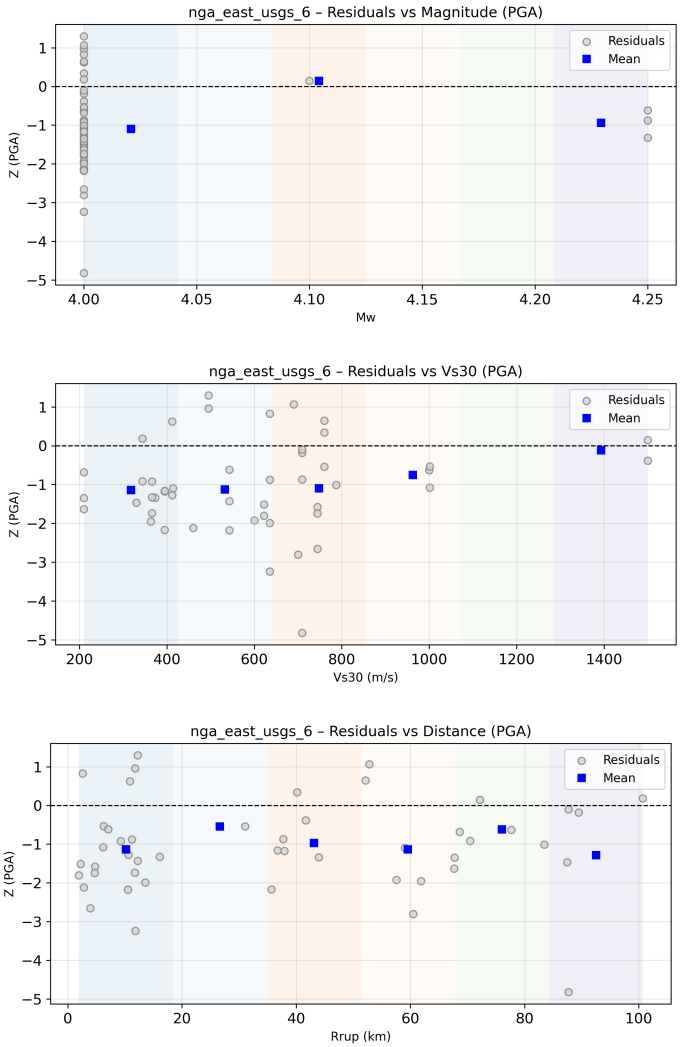

Fig. 24 Figure S24. Normalized residuals (Z-scores) as a function of Mw (top), Vs30 (middle), and rupture distance (bottom) for model USGS_6.

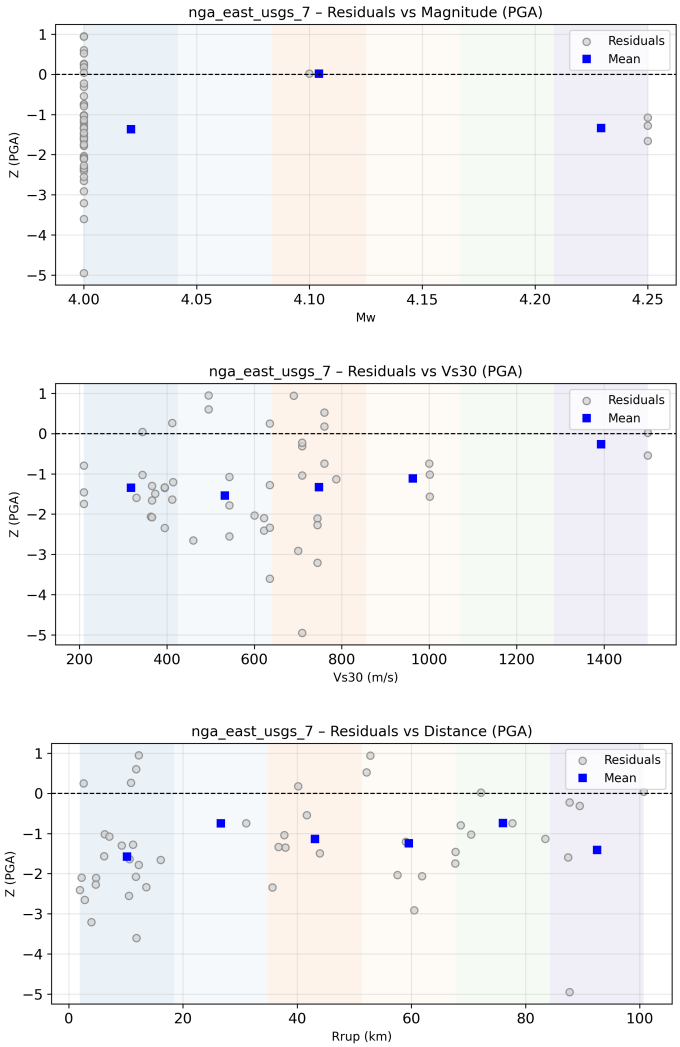

Fig. 25 Figure S25. Normalized residuals (Z-scores) as a function of Mw (top), Vs30 (middle), and rupture distance (bottom) for model USGS_7.

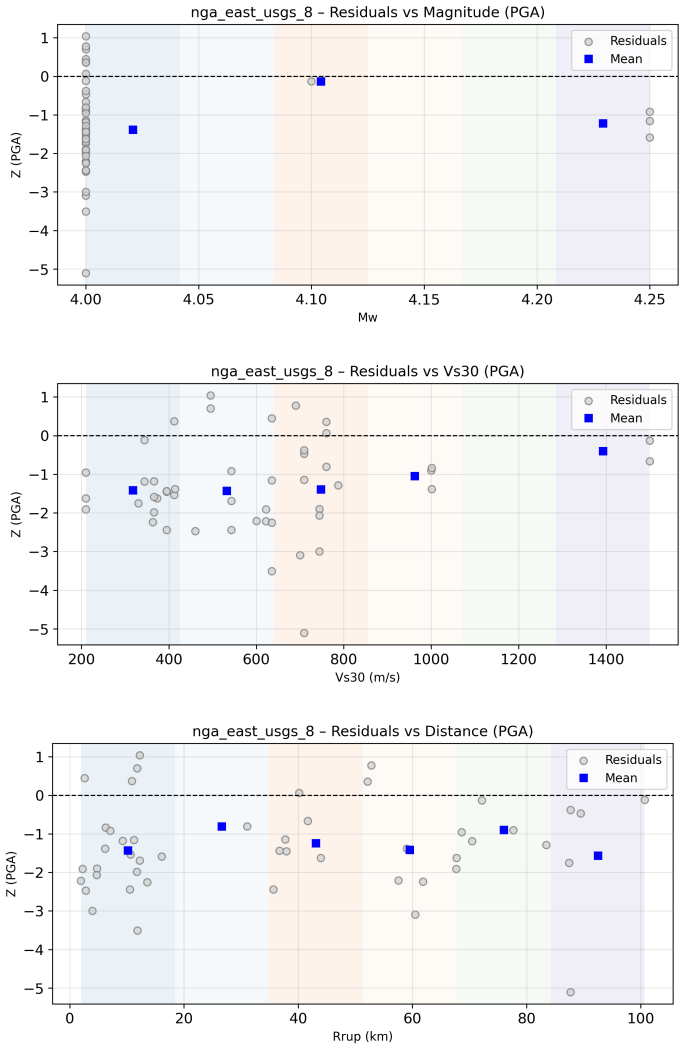

Fig. 26 Figure S26. Normalized residuals (Z-scores) as a function of Mw (top), Vs30 (middle), and rupture distance (bottom) for model USGS_8.

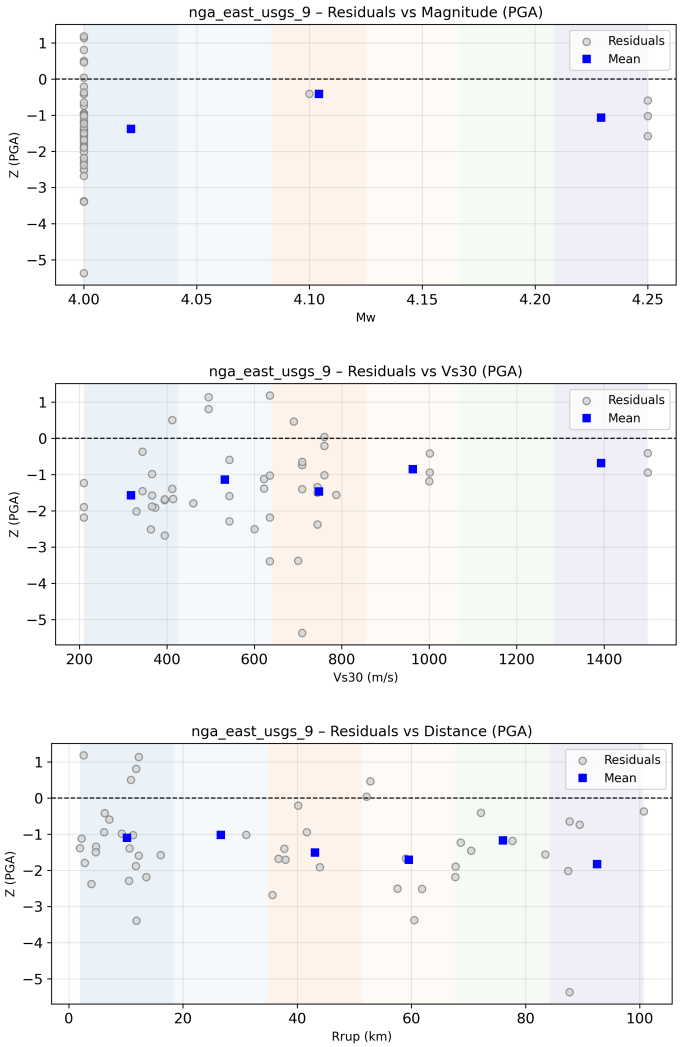

Fig. 27 Figure S27. Normalized residuals (Z-scores) as a function of Mw (top), Vs30 (middle), and rupture distance (bottom) for model USGS_9.

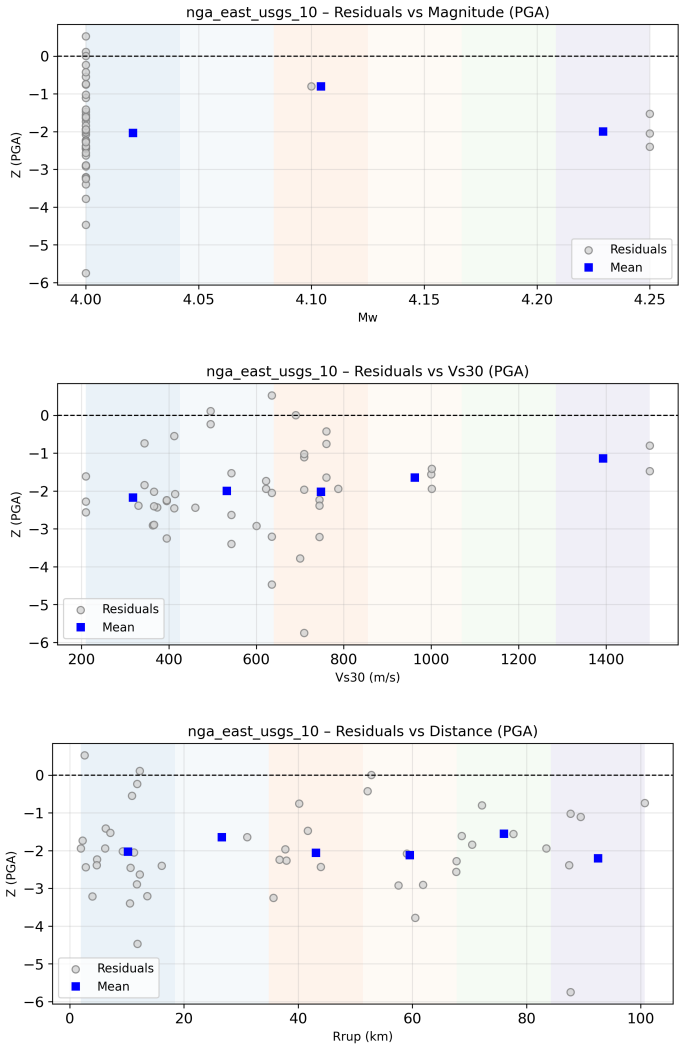

Fig. 28 Figure S28. Normalized residuals (Z-scores) as a function of Mw (top), Vs30 (middle), and rupture distance (bottom) for model USGS_10.

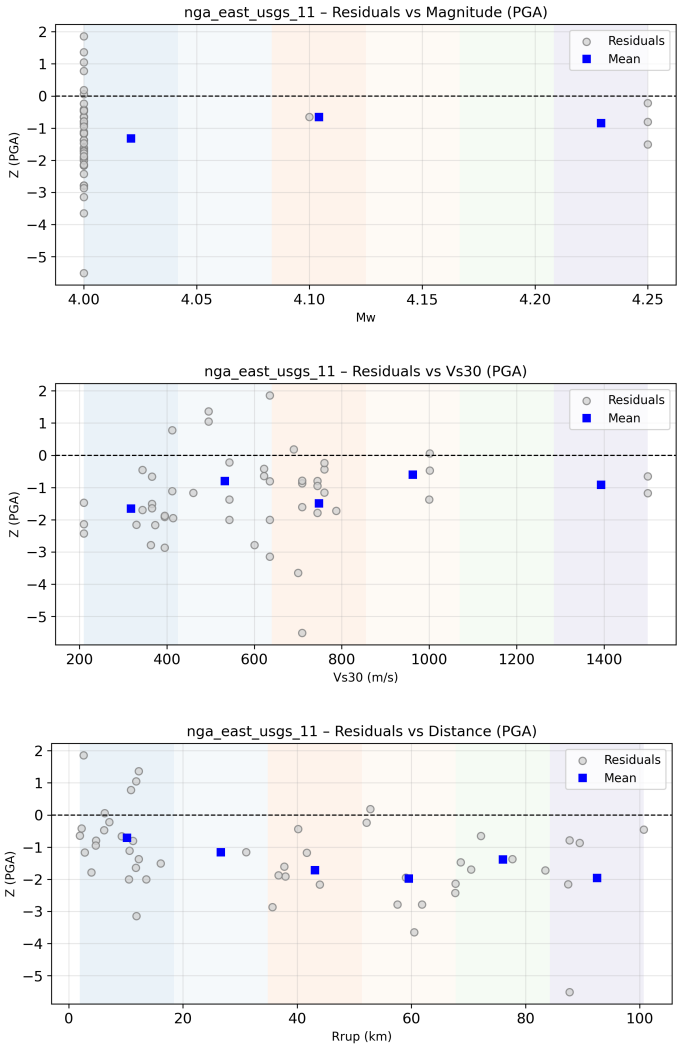

Fig. 29 Figure S29. Normalized residuals (Z-scores) as a function of Mw (top), Vs30 (middle), and rupture distance (bottom) for model USGS_11.

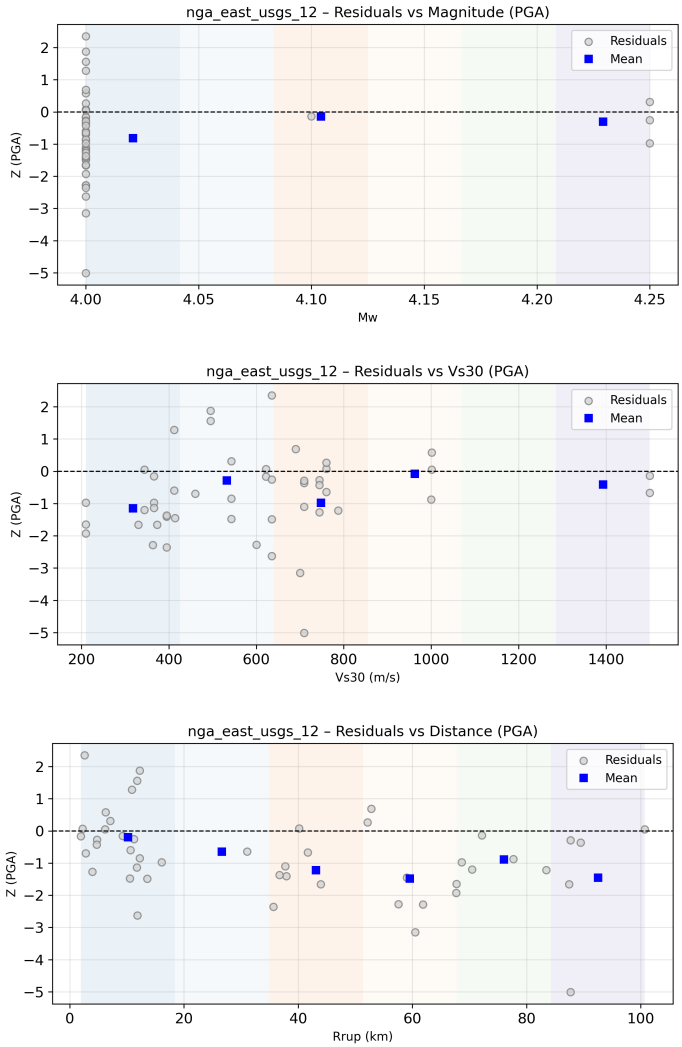

Fig. 30 Figure S30. Normalized residuals (Z-scores) as a function of Mw (top), Vs30 (middle), and rupture distance (bottom) for model USGS_12.

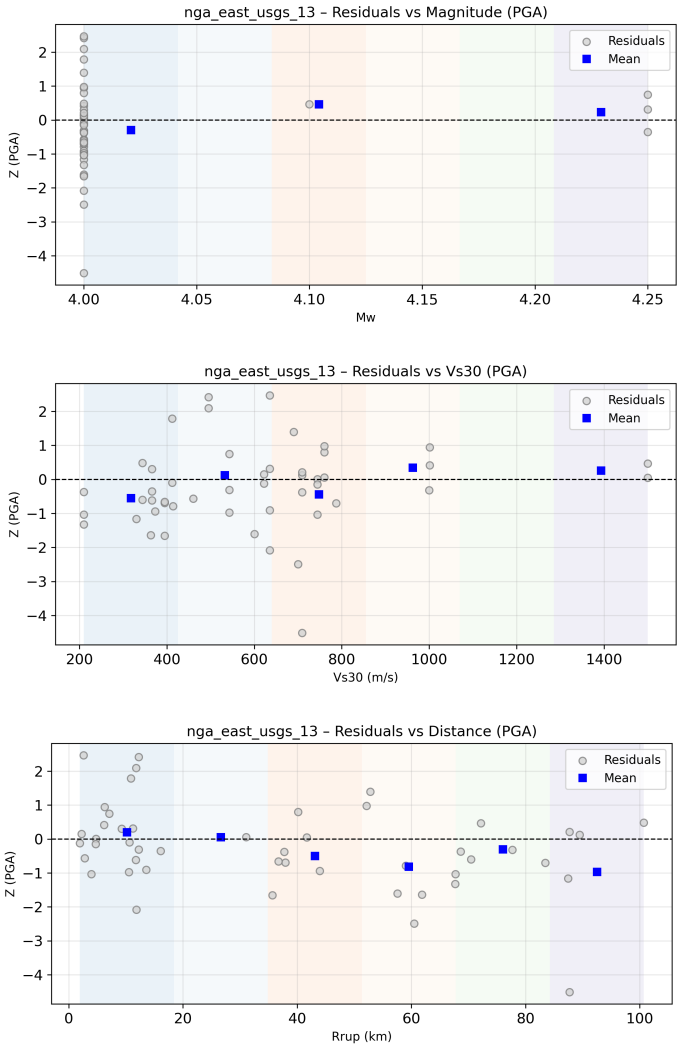

Fig. 31 Figure S31. Normalized residuals (Z-scores) as a function of Mw (top), Vs30 (middle), and rupture distance (bottom) for model USGS_13.

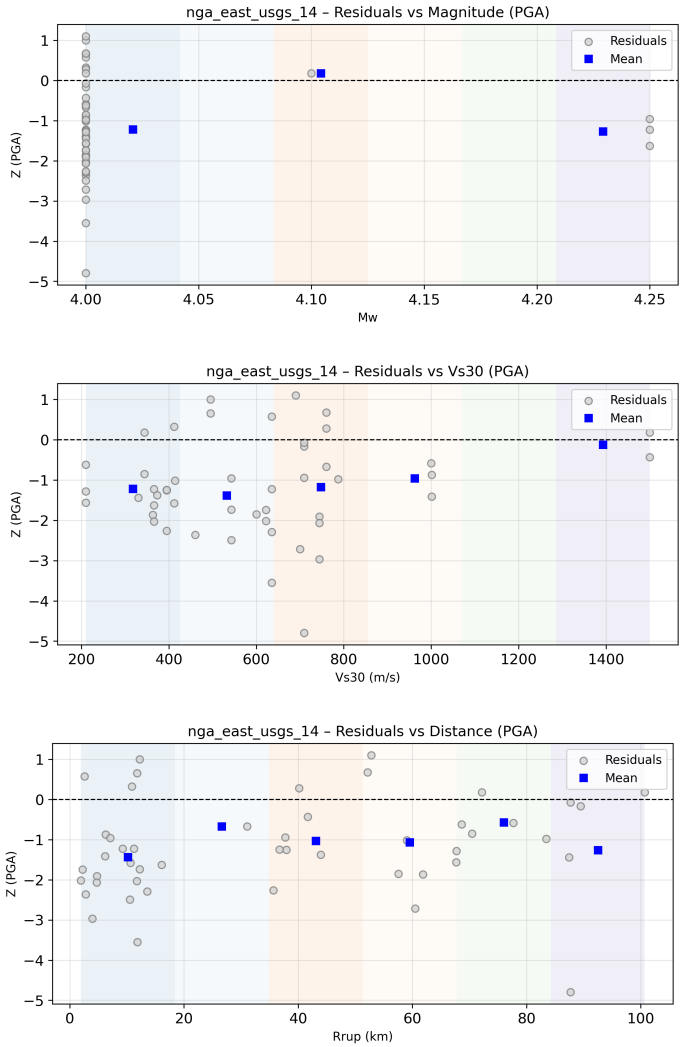

Fig. 32 Figure S32. Normalized residuals (Z-scores) as a function of Mw (top), Vs30 (middle), and rupture distance (bottom) for model USGS_14.

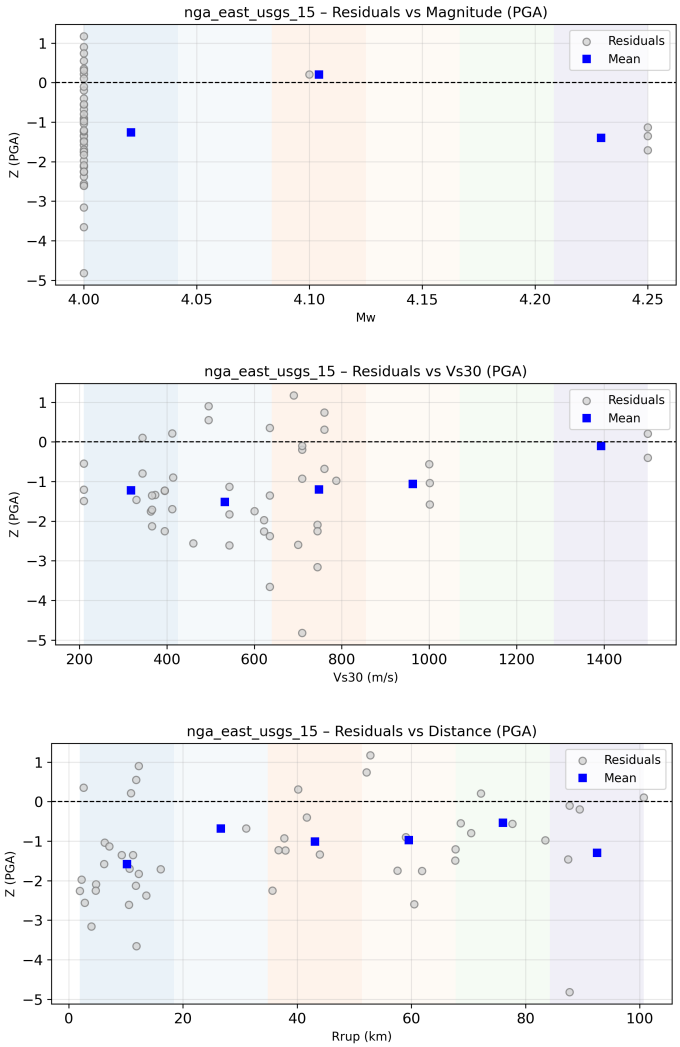

Fig. 33 Figure S33. Normalized residuals (Z-scores) as a function of Mw (top), Vs30 (middle), and rupture distance (bottom) for model USGS_15.

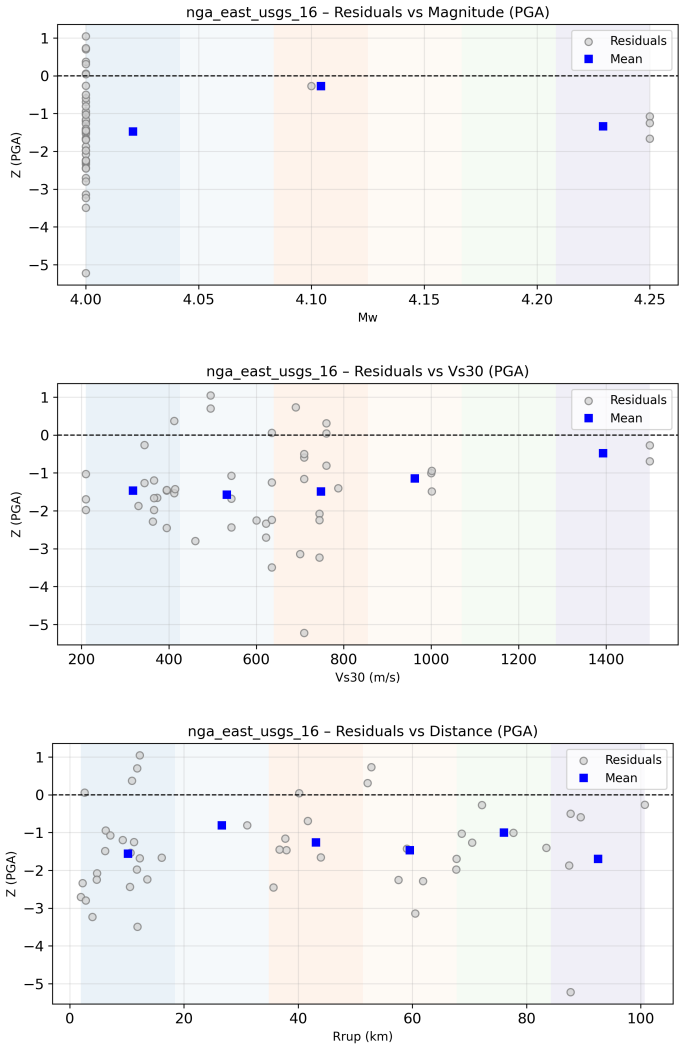

Fig. 34 Figure S34. Normalized residuals (Z-scores) as a function of Mw (top), Vs30 (middle), and rupture distance (bottom) for model USGS_16.

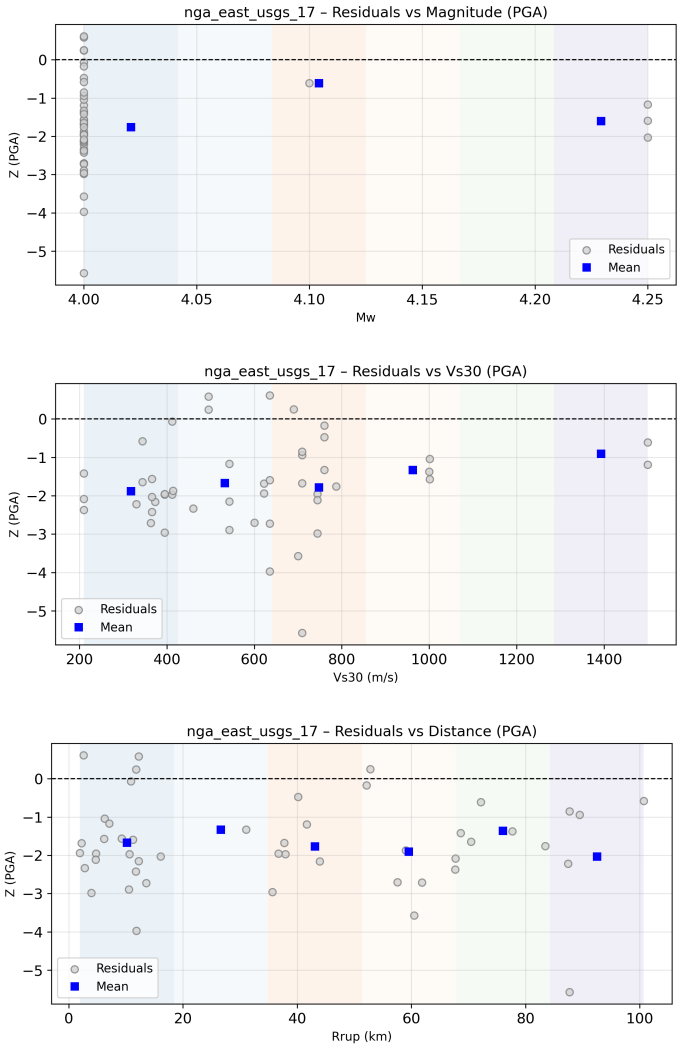

Fig. 35 Figure S35. Normalized residuals (Z-scores) as a function of Mw (top), Vs30 (middle), and rupture distance (bottom) for model USGS_17.

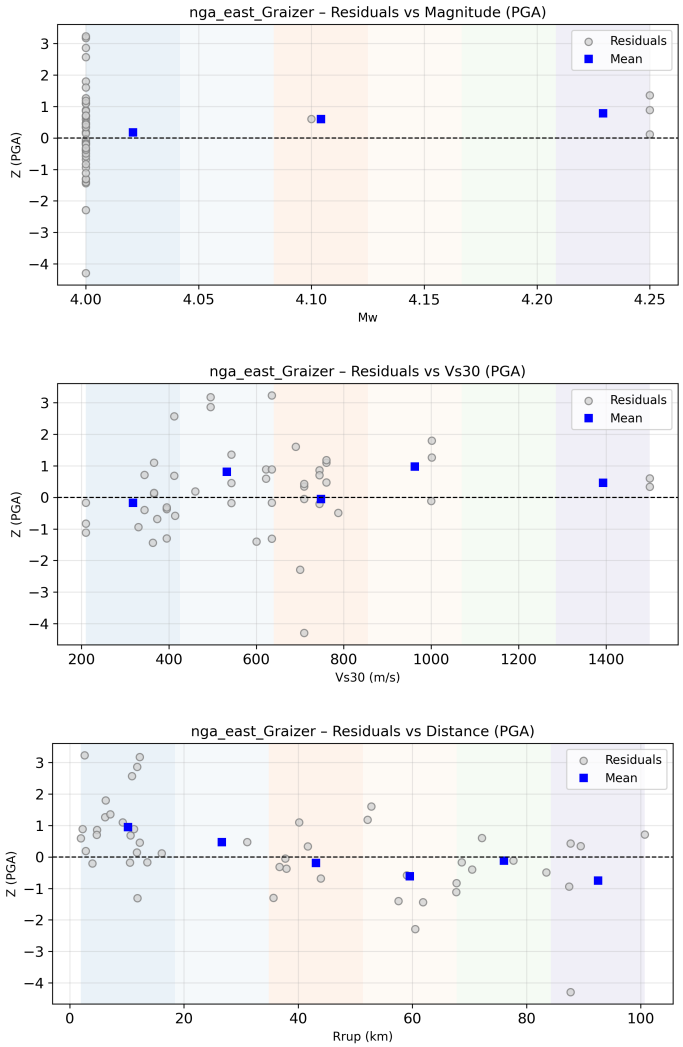

Fig. 36 Figure S36. Normalized residuals (Z-scores) as a function of Mw (top), Vs30 (middle), and rupture distance (bottom) for the NGA-East Graizer model.

S3 Complete Brazilian Strong-Motion PGA Database

Table S3 provides the complete dataset of 150 PGA records used in this study, comprising observations from 27 regional earthquakes recorded at stations of the Brazilian Seismographic Network (RSBR). The dataset includes site characterization data (Vs30) obtained from geophysical surveys (MASW and HVSR) conducted in 2023–2024, as described in Section 2.3 of the main text. The full dataset is also available for download in CSV format at https://gitea.iag.usp.br/sismologia/brazil-pga-database.

Column descriptions: **ID** = record identifier; $\mathbf{Lat_{ev}}$ = epicentral latitude (°); $\mathbf{Lon_{ev}}$ = epicentral longitude (°); **Dep** = focal depth (km); **Mw** = moment magnitude; **Sta** = station code; **Vs30** = site shear-wave velocity (m/s); $\mathbf{R_{rup}}$ = rupture distance (km); $\mathbf{R_{epi}}$ = epicentral distance (km); $\mathbf{PGA_{obs}}$ = observed PGA (g); $\mathbf{PGA_N}$ = PGA normalized to Mw = 4.0 (g).

Table 1: Table S3. Complete Brazilian strong-motion PGA database used in this study.

ID	Lat_{ev}	Lon_{ev}	Dep	Mw	Sta	Vs30	R_{rup}	R_{epi}	PGA_{obs}	PGA_N
2008114_SVicente	-25.7	-45.41	17	4.69	DAES	2700	244.8	245	2.64×10^{-3}	7.34×10^{-4}
2008114_SVicente	-25.7	-45.41	17	4.69	SPB	1500	309.3	311	1.34×10^{-4}	3.60×10^{-5}
2008114_SVicente	-25.7	-45.41	17	4.69	ESAR	2000	314.5	314	1.54×10^{-3}	4.12×10^{-4}
2008114_SVicente	-25.7	-45.41	17	4.69	VABB	1636	337.4	339	3.54×10^{-4}	9.37×10^{-5}
2008114_SVicente	-25.7	-45.41	17	4.69	RCLB	2017	421.9	424	3.57×10^{-4}	9.14×10^{-5}
2008114_SVicente	-25.7	-45.41	17	4.69	SP7	760	429.8	433	4.66×10^{-5}	1.19×10^{-5}
2000325_Brasilia	-16.01	-47.79	0	3.32	BDFB	700	60.5	47	1.08×10^{-4}	3.09×10^{-4}
2000325_Brasilia	-16.01	-47.79	0	3.32	CORB	760	215.0	215	2.70×10^{-4}	9.35×10^{-4}
2000325_Brasilia	-16.01	-47.79	0	3.32	PORB	760	339.3	329	2.15×10^{-5}	7.97×10^{-5}
2000325_Brasilia	-16.01	-47.79	0	3.32	PAZB	760	358.5	343	9.18×10^{-5}	3.43×10^{-4}
2000325_Brasilia	-16.01	-47.79	0	3.32	IGAB	760	811.2	824	3.14×10^{-6}	1.33×10^{-5}
2000325_Brasilia	-16.01	-47.79	0	3.32	CANB	760	814.9	820	3.87×10^{-5}	1.64×10^{-4}
2000325_Brasilia	-16.01	-47.79	0	3.32	POPB	760	891.7	891	4.01×10^{-6}	1.72×10^{-5}
1997321_Guapeh	-20.75	-45.75	0	3.38	AREB	1000	77.7	78	4.53×10^{-4}	1.22×10^{-3}
1997321_Guapeh	-20.75	-45.75	0	3.38	BSCB	978	106.6	106	5.49×10^{-5}	1.55×10^{-4}
1997321_Guapeh	-20.75	-45.75	0	3.38	VAOB	1636	278.8	280	3.86×10^{-5}	1.24×10^{-4}
1997321_Guapeh	-20.75	-45.75	0	3.38	TRRB	760	307.3	307	1.18×10^{-5}	3.84×10^{-5}
1997321_Guapeh	-20.75	-45.75	0	3.38	BDFB	700	613.6	616	1.49×10^{-6}	5.33×10^{-6}
1993361_Itaguara	-20.32	-44.47	4	3.26	FRMB	1616	123.2	123	1.52×10^{-4}	4.23×10^{-4}
1993361_Itaguara	-20.32	-44.47	4	3.26	FURB	760	192.5	192	2.57×10^{-4}	7.58×10^{-4}
1993361_Itaguara	-20.32	-44.47	4	3.26	CACB	760	279.1	279	3.86×10^{-5}	1.20×10^{-4}
1993362_Itaguara	-20.32	-44.47	4	2.82	FRMB	1616	123.3	123	1.42×10^{-4}	1.06×10^{-3}
1993362_Itaguara	-20.32	-44.47	4	2.82	FURB	760	192.6	192	1.35×10^{-4}	1.13×10^{-3}
1993362_Itaguara	-20.32	-44.47	4	2.82	CACB	760	279.2	279	1.93×10^{-5}	1.78×10^{-4}

(continued on next page)

(continued from previous page)

ID	Lat_{ev}	Lon_{ev}	Dep	Mw	Sta	Vs30	R_{rup}	R_{epi}	PGA_{obs}	PGA_N
1996292_Jacuih	-21.04	-46.74	0	3.7	BRSB	760	204.2	205	8.28×10^{-5}	1.43×10^{-4}
1996292_Jacuih	-21.04	-46.74	0	3.7	VABB	1636	216.9	219	7.00×10^{-5}	1.21×10^{-4}
1996292_Jacuih	-21.04	-46.74	0	3.7	TRRB	760	388.5	387	4.78×10^{-5}	8.60×10^{-5}
1996292_Jacuih	-21.04	-46.74	0	3.7	NATB	760	494.0	491	1.30×10^{-5}	2.38×10^{-5}
1996292_Jacuih	-21.04	-46.74	0	3.7	ARA 1.00	760	800.0	802	7.00×10^{-7}	1.32×10^{-6}
2000272_Catiguah	-20.93	-49.05	0	3.04	CANB	760	264.0	265	9.29×10^{-5}	5.60×10^{-4}
2000272_Catiguah	-20.93	-49.05	0	3.04	VAOB	1636	314.5	315	6.95×10^{-6}	4.35×10^{-5}
2000272_Catiguah	-20.93	-49.05	0	3.04	CORB	760	354.7	356	1.27×10^{-5}	8.15×10^{-5}
2000272_Catiguah	-20.93	-49.05	0	3.04	IGAB	760	397.1	398	3.29×10^{-6}	2.16×10^{-5}
2000272_Catiguah	-20.93	-49.05	0	3.04	POPB	760	426.6	426	7.96×10^{-6}	5.31×10^{-5}
2000272_Catiguah	-20.93	-49.05	0	3.04	PAZB	760	669.2	672	2.95×10^{-6}	2.16×10^{-5}
2000272_Catiguah	-20.93	-49.05	0	3.04	PORB	760	841.0	845	7.60×10^{-7}	5.85×10^{-6}
2006140_SCaetano	-8.26	-36.16	5	3.59	RCBR	1500	270.3	272	6.20×10^{-5}	1.34×10^{-4}
2007079_SCaetano	-8.2635	-36.1607	5	3.15	RCBR	1500	270.8	272	3.44×10^{-6}	1.70×10^{-5}
2010011_Taipu	-5.545	-35.653	5.5	3.7	RCBR	1500	41.7	42	2.40×10^{-3}	3.72×10^{-3}
2010011_Taipu	-5.545	-35.653	5.5	3.7	PFBR	760	296.5	297	5.87×10^{-5}	1.04×10^{-4}
2010011_Taipu	-5.545	-35.653	5.5	3.7	SABR	760	321.7	324	5.94×10^{-5}	1.06×10^{-4}
2010011_Taipu	-5.545	-35.653	5.5	3.7	SBBR	760	559.8	555	8.29×10^{-6}	1.53×10^{-5}
2010009_Taipu	-5.545	-35.653	5.5	3.15	PFBR	760	296.7	297	2.04×10^{-5}	1.02×10^{-4}
2010009_Taipu	-5.545	-35.653	5.5	3.15	SABR	760	321.9	324	1.24×10^{-5}	6.32×10^{-5}
2010009_Taipu	-5.545	-35.653	5.5	3.15	SBBR	760	560.0	555	3.14×10^{-6}	1.77×10^{-5}
2010281_MaraRosa	-13.7713	-49.1602	1.4	4.35	CAN3	391	119.4	120	3.79×10^{-3}	2.09×10^{-3}
2010281_MaraRosa	-13.7713	-49.1602	1.4	4.35	SSV2	609	143.9	145	7.20×10^{-4}	3.92×10^{-4}
2010281_MaraRosa	-13.7713	-49.1602	1.4	4.35	BDFB	700	239.9	242	5.50×10^{-5}	2.88×10^{-5}
2012354_MClaros_04h	-16.6972	-43.8783	1.84	3.26	MCI9	622	2.2	2	5.55×10^{-2}	9.65×10^{-2}

(continued on next page)

(continued from previous page)

ID	Lat_{ev}	Lon_{ev}	Dep	Mw	Sta	Vs30	R_{rup}	R_{epi}	PGA_{obs}	PGA_N
2012354_MClaros_04h	-16.6972	-43.8783	1.84	3.26	MCI8	1001	6.2	6	2.66×10^{-2}	5.75×10^{-2}
2012354_MClaros_04h	-16.6972	-43.8783	1.84	3.26	MCI7	412	10.9	11	4.28×10^{-2}	1.02×10^{-1}
2012354_MClaros_04h	-16.6972	-43.8783	1.84	3.26	MCI6	495	12.2	12	5.83×10^{-2}	1.41×10^{-1}
2012354_MClaros_04h	-16.6972	-43.8783	1.84	3.26	JANB	694	187.0	188	5.22×10^{-5}	1.97×10^{-4}
2012354_MClaros_04h	-16.6972	-43.8783	1.84	3.26	PMNB	614	339.3	340	2.36×10^{-5}	9.82×10^{-5}
2012354_MClaros_04h	-16.6972	-43.8783	1.84	3.26	BSFB	1190	398.7	399	8.22×10^{-6}	3.51×10^{-5}
2012354_MClaros_04h	-16.6972	-43.8783	1.84	3.26	BSCB	978	485.0	487	1.06×10^{-5}	4.67×10^{-5}
2012354_MClaros_05h	-16.7005	-43.879	1.52	3.26	MCI9	622	1.9	2	4.97×10^{-2}	8.55×10^{-2}
2012354_MClaros_05h	-16.7005	-43.879	1.52	3.26	MCI8	1001	6.3	6	3.95×10^{-2}	8.59×10^{-2}
2012354_MClaros_05h	-16.7005	-43.879	1.52	3.26	MCI7	412	10.6	11	1.00×10^{-2}	2.37×10^{-2}
2012354_MClaros_05h	-16.7005	-43.879	1.52	3.26	MCI6	495	11.8	12	4.76×10^{-2}	1.15×10^{-1}
2012354_MClaros_05h	-16.7005	-43.879	1.52	3.26	JANB	694	187.3	188	7.03×10^{-5}	2.66×10^{-4}
2012354_MClaros_05h	-16.7005	-43.879	1.52	3.26	PMNB	614	339.0	339	2.03×10^{-5}	8.45×10^{-5}
2012354_MClaros_05h	-16.7005	-43.879	1.52	3.26	BSFB	1190	398.7	399	4.03×10^{-6}	1.72×10^{-5}
2012354_MClaros_05h	-16.7005	-43.879	1.52	3.26	BSCB	978	484.6	487	5.14×10^{-6}	2.27×10^{-5}
2019140_Delfinopolis	-20.34	-46.86	20	3.64	CANS	690	52.8	49	4.52×10^{-3}	7.76×10^{-3}
2019140_Delfinopolis	-20.34	-46.86	20	3.64	BB19B	562	192.3	191	2.95×10^{-4}	5.64×10^{-4}
2019140_Delfinopolis	-20.34	-46.86	20	3.64	PMNB	614	204.8	205	2.59×10^{-4}	4.98×10^{-4}
2019140_Delfinopolis	-20.34	-46.86	20	3.64	BSCB	978	230.9	230	9.39×10^{-5}	1.82×10^{-4}
2019140_Delfinopolis	-20.34	-46.86	20	3.64	VABB	1636	295.4	296	4.15×10^{-5}	8.21×10^{-5}
2019329_Congonhas	-20.4273	-43.8868	0.6	3.15	FABR	460	2.8	3	2.32×10^{-2}	4.90×10^{-2}
2019329_Congonhas	-20.4273	-43.8868	0.6	3.15	FJAO	373	43.9	44	5.15×10^{-4}	1.81×10^{-3}
2019329_Congonhas	-20.4273	-43.8868	0.6	3.15	GNG6	414	59.0	59	3.62×10^{-4}	1.34×10^{-3}
2019329_Congonhas	-20.4273	-43.8868	0.6	3.15	GNG4	363	61.8	59	1.79×10^{-4}	6.70×10^{-4}
2019329_Congonhas	-20.4273	-43.8868	0.6	3.15	AGLP	330	87.4	88	1.64×10^{-4}	6.55×10^{-4}

(continued on next page)

(continued from previous page)

ID	Lat_{ev}	Lon_{ev}	Dep	Mw	Sta	Vs30	R_{rup}	R_{epi}	PGA_{obs}	PGA_N
2019329_Congonhas	-20.4273	-43.8868	0.6	3.15	FZND	600	57.5	58	1.87×10^{-4}	6.91×10^{-4}
2019329_Congonhas	-20.4273	-43.8868	0.6	3.15	BSCB	978	110.9	111	8.39×10^{-5}	3.50×10^{-4}
2019329_Congonhas	-20.4273	-43.8868	0.6	3.15	CHCR	547	112.5	113	7.00×10^{-5}	2.93×10^{-4}
2019329_Congonhas	-20.4273	-43.8868	0.6	3.15	DIAM	565	237.0	238	4.67×10^{-5}	2.25×10^{-4}
2019329_Congonhas	-20.4273	-43.8868	0.6	3.15	CANS	690	261.8	262	2.70×10^{-5}	1.32×10^{-4}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	GDU01	1500	72.1	73	2.89×10^{-3}	2.47×10^{-3}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	NBIT	2315	209.7	207	4.15×10^{-5}	3.46×10^{-5}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	CMC01	2006	252.7	254	1.80×10^{-4}	1.49×10^{-4}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	NBPN	1203	253.3	260	3.09×10^{-4}	2.56×10^{-4}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	GUA01	760	389.7	392	1.04×10^{-4}	8.55×10^{-5}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	NBTA	760	459.0	465	4.49×10^{-5}	3.68×10^{-5}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	ABR01	760	547.2	550	1.54×10^{-5}	1.26×10^{-5}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	JANB	694	556.9	567	2.55×10^{-5}	2.08×10^{-5}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	SDBA	760	591.5	594	3.14×10^{-5}	2.56×10^{-5}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	NBMA	760	631.3	639	3.81×10^{-5}	3.10×10^{-5}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	SJMB	1100	652.8	652	2.54×10^{-5}	2.06×10^{-5}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	BSFB	1190	657.5	657	1.82×10^{-5}	1.48×10^{-5}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	RIB01	760	697.3	701	1.76×10^{-5}	1.43×10^{-5}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	DIAM	565	734.0	734	3.69×10^{-5}	2.99×10^{-5}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	NBPV	760	863.9	870	7.47×10^{-6}	6.04×10^{-6}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	PMNB	614	954.3	961	1.08×10^{-5}	8.71×10^{-6}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	NBPS	760	978.8	989	1.71×10^{-5}	1.38×10^{-5}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	CAM01	760	995.7	1001	6.77×10^{-6}	5.45×10^{-6}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	SMTB	760	997.6	1002	1.83×10^{-5}	1.47×10^{-5}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	IPMB	760	1075.0	1084	4.53×10^{-6}	3.64×10^{-6}

(continued on next page)

(continued from previous page)

ID	Lat_{ev}	Lon_{ev}	Dep	Mw	Sta	Vs30	R_{rup}	R_{epi}	PGA_{obs}	PGA_N
2020243_Amargosa	-13.072	-39.471	1.2	4.1	NBMO	760	1076.4	1087	1.06×10^{-5}	8.52×10^{-6}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	CANS	690	1082.9	1089	9.81×10^{-6}	7.89×10^{-6}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	BB19B	562	1302.2	1310	4.67×10^{-6}	3.74×10^{-6}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	VABB	1636	1352.3	1358	2.93×10^{-6}	2.34×10^{-6}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	ARAG	760	1360.9	1361	1.62×10^{-6}	1.30×10^{-6}
2020243_Amargosa	-13.072	-39.471	1.2	4.1	FRTB	500	1553.9	1561	2.34×10^{-6}	1.87×10^{-6}
2021031_GuyanaMain	2.705	-59.52	3	5.64	BOAV	858	114.2	117	6.42×10^{-3}	4.01×10^{-4}
2021085_GuyanaAft	2.7300	-59.5502	2.2	4.25	GUY1	543	7.1	7	9.08×10^{-2}	6.93×10^{-2}
2021085_GuyanaAft	2.7300	-59.5502	2.2	4.25	GUY2	635	11.3	12	3.93×10^{-2}	2.92×10^{-2}
2021085_GuyanaAft	2.7300	-59.5502	2.2	4.25	GUY3	366	16.1	17	1.63×10^{-2}	1.19×10^{-2}
2021085_GuyanaAft	2.7300	-59.5502	2.2	4.25	BOAV	858	113.8	114	1.11×10^{-3}	7.28×10^{-4}
2021090_GuyanaAft2	2.6890	-59.5018	1.2	3.67	GUY3	366	9.3	9	2.64×10^{-2}	3.85×10^{-2}
2021090_GuyanaAft2	2.6890	-59.5018	1.2	3.67	GUY1	543	12.3	13	1.11×10^{-2}	1.65×10^{-2}
2021090_GuyanaAft2	2.6890	-59.5018	1.2	3.67	GUY2	635	13.6	14	5.93×10^{-3}	8.88×10^{-3}
2021090_GuyanaAft2	2.6890	-59.5018	1.2	3.67	BOAV	858	117.8	118	1.83×10^{-4}	3.20×10^{-4}
2021093_GuyanaAft3	2.6992	-59.5220	1.1	3.75	GUY4	635	2.6	3	4.42×10^{-1}	5.48×10^{-1}
2021093_GuyanaAft3	2.6992	-59.5220	1.1	3.75	GUY1	543	10.5	11	8.76×10^{-3}	1.17×10^{-2}
2021093_GuyanaAft3	2.6992	-59.5220	1.1	3.75	GUY3	366	11.7	12	1.07×10^{-2}	1.44×10^{-2}
2021093_GuyanaAft3	2.6992	-59.5220	1.1	3.75	GUY2	635	11.8	12	3.09×10^{-3}	4.16×10^{-3}
2021093_GuyanaAft3	2.6992	-59.5220	1.1	3.75	BOAV	858	115.9	116	1.69×10^{-4}	2.58×10^{-4}
20210428_Barcelos	-0.55	-61.63	17	4.32	MACA	760	311.2	309	1.33×10^{-3}	6.28×10^{-4}
20210428_Barcelos	-0.55	-61.63	17	4.32	BOAV	858	345.7	350	1.72×10^{-4}	9.27×10^{-5}
20210428_Barcelos	-0.55	-61.63	17	4.32	TEFE	760	468.1	469	5.68×10^{-4}	2.61×10^{-4}
20210428_Barcelos	-0.55	-61.63	17	4.32	ITTB	760	783.2	780	2.93×10^{-5}	1.49×10^{-5}
20210428_Barcelos	-0.55	-61.63	17	4.32	MAL2	760	847.4	844	1.61×10^{-4}	7.09×10^{-5}

(continued on next page)

(continued from previous page)

ID	Lat_{ev}	Lon_{ev}	Dep	Mw	Sta	Vs30	R_{rup}	R_{epi}	PGA_{obs}	PGA_N
20230123_Carajas	-6.40	-50.07	0	3.54	PRPB	709	37.7	38	1.60×10^{-3}	3.11×10^{-3}
20230123_Carajas	-6.40	-50.07	0	3.54	VL15	760	31.0	32	3.02×10^{-3}	5.75×10^{-3}
20230123_Carajas	-6.40	-50.07	0	3.54	VL16	760	40.1	41	3.59×10^{-3}	7.02×10^{-3}
20230123_Carajas	-6.40	-50.07	0	3.54	VL17	760	52.1	53	2.75×10^{-3}	5.52×10^{-3}
20230123_Carajas	-6.40	-50.07	0	3.54	SRLE	344	70.4	71	6.32×10^{-4}	1.31×10^{-3}
20230123_Carajas	-6.40	-50.07	0	3.54	SAL2	787	83.4	84	3.94×10^{-4}	8.30×10^{-4}
20230123_Carajas	-6.40	-50.07	0	3.54	SMTB	760	385.9	387	4.26×10^{-5}	1.05×10^{-4}
20250403_Salobo	-5.7842	-50.5186	0	3.85	SLBO	744	4.7	6	4.63×10^{-2}	5.38×10^{-2}
20250403_Salobo	-5.7842	-50.5186	0	3.85	SRN1	395	37.9	38	2.16×10^{-3}	2.68×10^{-3}
20250403_Salobo	-5.7842	-50.5186	0	3.85	SRSU	210	68.6	69	1.31×10^{-3}	1.66×10^{-3}
20250403_Salobo	-5.7842	-50.5186	0	3.85	PRPB	709	89.4	89	1.16×10^{-3}	1.48×10^{-3}
20250710_Salobo	-5.7988	-50.5175	0	3.8	SLBO	744	4.0	4	1.98×10^{-2}	2.64×10^{-2}
20250710_Salobo	-5.7988	-50.5175	0	3.8	SRN1	395	35.7	37	1.04×10^{-3}	1.39×10^{-3}
20250710_Salobo	-5.7988	-50.5175	0	3.8	SRSU	210	67.7	68	6.02×10^{-4}	8.01×10^{-4}
20250710_Salobo	-5.7988	-50.5175	0	3.8	PRPB	709	87.7	88	1.17×10^{-3}	1.63×10^{-3}
20250710_Salobo	-5.7988	-50.5175	0	3.8	SRLE	344	101.7	102	7.45×10^{-4}	1.03×10^{-3}
20240618_Frutal	-19.9537	-48.803	0	3.6	BB19B	562	125.7	127	3.59×10^{-4}	6.91×10^{-4}
20240618_Frutal	-19.9537	-48.803	0	3.6	CANS	690	253.7	254	8.62×10^{-5}	1.66×10^{-4}
20240618_Frutal	-19.9537	-48.803	0	3.6	PMNB	614	292.7	294	6.47×10^{-5}	1.24×10^{-4}
20240618_Frutal	-19.9537	-48.803	0	3.6	BSCB	978	435.7	437	2.10×10^{-5}	4.05×10^{-5}
20240618_Frutal	-19.9537	-48.803	0	3.6	DIAM	565	569.7	570	2.17×10^{-5}	4.18×10^{-5}
20250710_Salobo2	-5.7935	-50.5137	0	3.7	SLBO	744	4.7	5	3.12×10^{-2}	4.78×10^{-2}
20250710_Salobo2	-5.7935	-50.5137	0	3.7	SRN1	395	36.7	37	1.89×10^{-3}	2.90×10^{-3}
20250710_Salobo2	-5.7935	-50.5137	0	3.7	SRSU	210	67.7	68	6.53×10^{-4}	1.00×10^{-3}
20250710_Salobo2	-5.7935	-50.5137	0	3.7	PRPB	709	87.7	88	2.44×10^{-5}	3.98×10^{-5}

(continued on next page)

(continued from previous page)

ID	$\mathbf{Lat_{ev}}$	$\mathbf{Lon_{ev}}$	Dep	Mw	Sta	Vs30	$\mathbf{R_{rup}}$	$\mathbf{R_{epi}}$	$\mathbf{PGA_{obs}}$	$\mathbf{PGA_N}$
20250710_Salobo2	-5.7935	-50.5137	0	3.7	SRLE	344	100.7	101	1.20×10^{-3}	1.97×10^{-3}