



Supplement of

A methodological workflow for the identification of earthquake sources from macroseismic data

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Table S1. List of the 191 earthquakes included in the dataset of this study. In the header, "**IDPset ID**" indicates the preferred macroseismic field adopted by DBI15; "**NIDPs Pref**" is the number of intensity data points (IDPs) of the preferred dataset; "**NIDPs Rev**" is the number of IDPs after the pre-processing procedure; "**Lat Pref**" and "**Lon Pref**" are the epicentral coordinates derived from the preferred macroseismic field; "**Lat Rev**" and "**Lon Rev**" are the epicentral coordinates derived from the revised macroseismic field; "**Lat Instr**" and "**Lon Instr**" are the available instrumental epicentral locations from CPT115; "**Dist_1 [km]**" is the location shifts between the preferred and revised epicentral coordinates; "**Dist_2 [km]**" is the location shifts between the preferred and instrumental epicentral coordinates; "**Dist_3 [km]**" is the location shifts between the revised and instrumental epicentral coordinates; "**Mw Pref**" is the magnitude estimate derived from the preferred field; "**Mw Rev**" is the magnitude estimate derived from the revised field; "**Mw Instr**" is the instrumental magnitude; "**ΔMw_1**" is the magnitude difference between preferred and revised estimates; "**ΔMw_2**" is the magnitude difference between preferred and instrumental magnitudes; "**ΔMw_3**" is the magnitude difference between revised and instrumental magnitudes.

	Event date	Event name (CPT115)	Event ID (CPT115)	IDPset ID	NIDPs Pref	NIDPs Rev	Lat Pref	Lon Pref	Lat Rev	Lon Rev	Lat Instr	Lon Instr	Dist_1 [km]	Dist_2 [km]	Dist_3 [km]	Mw Pref	Mw Rev	Mw Instr	ΔMw_1	ΔMw_2	ΔMw_3
1	January 03, 1117	Veronese	11170103_1515_000	CFTI4med	55	33	45.267	11.015	45.338	11.109			10.8			6.52	6.37		0.15		
2	March 25, 1120	Valle del Garigliano	11200325_0000_000	CFTI4med	4	4	41.377	13.917	41.377	13.917			0			5.8	5.8		0		
3	February 04, 1169	Sicilia sud-orientale	11690204_0700_000	CFTI4med	8	5	37.215	14.949	37.285	14.999			9			6.5	6.03		0.47		
4	May 24, 1184	Valle del Crati	11840524_0000_000	CFTI4med	6	6	39.395	16.194	39.395	16.194			0			6.75	6.75		0		
5	December 25, 1222	Bresciano-Veronese	12221225_1230_000	CFTI4med	18	9	45.312	10.699	45.299	11.09			30.6			5.68	5.62		0.06		
6	April 30, 1279	Appennino umbro-marchigiano	12790430_0000_000	MONA987	17	14	44.13	11.919	44.13	11.919			0			5.52	5.52		0		
7	April 30, 1279	Appennino forlivese	12790430_1800_000	POST990	5	5	43.093	12.872	43.198	12.955			13.5			6.2	6.05		0.15		
8	September 04, 1293	Sannio-Matese	12930904_0000_000	CFTI4med	6	4	41.304	14.548	41.188	14.368			19.8			5.8	5.33		0.47		
9	December 01, 1298	Monti Reatini	12981201_0000_000	CFTI4med	5	4	42.576	12.903	42.546	12.828			6.9			6.26	5.8		0.46		
10	December 03, 1315	Aquilano	13151203_0000_000	CFTI4med	4	2	42.351	13.399	42.351	13.399			0			5.56	5.56		0		
11	December 01, 1328	Valnerina	13281201_0000_000	MONA987	13	12	42.857	13.018	42.857	13.018			0			6.49	6.51		-0.02		
12	September 09, 1349	Appennino laziale-abruzzese	13490909_0000_000	CFTI4med	17	16	42.27	13.118	42.266	13.109			0.9			6.27	6.25		0.02		
13	September 09, 1349	Lazio-Molise	13490909_0815_001	GALNA009	24	20	41.554	13.942	41.57	13.907			3.5			6.8	6.7		0.1		
14	December 25, 1352	Alta Valtiberina	13521225_0000_000	CASAL996	7	7	43.469	12.127	43.469	12.127			0			6.31	6.31		0		
15	October 18, 1389	Alta Valtiberina	13891018_0000_000	CASAL996	9	9	43.527	12.299	43.527	12.299			0			6.03	6.03		0		
16	August 07, 1414	Colline Metallifere	14140807_0000_001	CASAL996	8	8	43.27	11.121	43.27	11.121			0			5.7	5.7		0		
17	June 11, 1438	Parmense	14380611_0200_000	CFTI4med	4	4	44.844	10.239	44.844	10.239			0			5.56	5.56		0		
18	December 05, 1456	Appennino centro-meridionale	14561205_0000_000	MELAL988	199	173	41.302	14.711	41.317	14.728			2.2			7.19	6.85		0.34		
19	April 26, 1458	Alta Valtiberina	14580426_1215_000	CFTI4med	5	5	43.463	12.236	43.463	12.236			0			5.8	5.8		0		
20	November 27, 1461	Aquilano	14611127_2105_000	TERAL009	8	8	42.308	13.544	42.308	13.544			0			6.5	6.5		0		
21	January 15, 1466	Irpinia-Basilicata	14660115_0225_000	CFTI4med	31	31	40.765	15.334	40.765	15.334			0			5.98	5.98		0		
22	May 07, 1481	Lunigiana	14810507_1415_000	CFTI4med	6	6	44.274	10.13	44.274	10.13			0			5.6	5.6		0		
23	August 11, 1483	Romagna	14830811_1940_000	CFTI4med	14	14	44.155	12.23	44.155	12.23			0			5.69	5.69		0		
24	June 05, 1501	Modenese	15010605_1000_000	CFTI4med	17	15	44.519	10.844	44.519	10.844			0			6.05	6.05		0		
25	January 03, 1505	Bolognese	15050103_0200_000	CFTI4med	31	31	44.507	11.23	44.507	11.23			0			5.62	5.62		0		
26	February 25, 1509	Stretto di Messina	15090225_2220_000	CFTI4med	4	4	38.1	15.684	38.1	15.684			0			5.56	5.56		0		
27	March 26, 1511	Friuli-Slovenia	15110326_1440_000	CAMAL011c	120	97	46.209	13.216	46.209	13.216			0			6.32	6.23		0.09		
28	June 13, 1542	Mugello	15420613_0215_000	CFTI4med	46	45	44.006	11.385	44.006	11.385			0			6.02	6.02		0		
29	December 10, 1542	Sicilia sud-orientale	15421210_1515_000	CFTI4med	32	28	37.215	14.944	37.146	14.886			9.2			6.68	6.27		0.41		
30	April 13, 1558	Valdarno superiore	15580413_0000_000	CAMAL011b	29	22	43.457	11.564	43.457	11.564			0			5.98	5.98		0		
31	May 11, 1560	Costa pugliese centrale	15600511_0440_000	CFTI4med	7	7	41.249	16.485	41.249	16.485			0			5.66	5.66		0		
32	July 31, 1561	Vallo di Diano	15610731_1945_000	CASAL008	22	20	40.65	15.389	40.627	15.42			3.6			6.34	6.31		0.03		
33	July 31, 1561	Penisola sorrentina	15610731_2010_000	CASAL008	5	5	40.685	14.718	40.685	14.718			0			5.56	5.56		0		
34	August 19, 1561	Vallo di Diano	15610819_1550_000	CASAL008	32	31	40.563	15.505	40.557	15.449			4.8			6.72	6.73		-0.01		
35	September 10, 1584	Appennino forlivese	15840910_2030_000	CFTI4med	17	17	43.862	11.992	43.862	11.992			0			5.97	5.97		0		
36	November 06, 1599	Valnerina	15991106_0125_000	CFTI4med	20	19	42.724	13.021	42.724	13.021			0			6.07	6.08		-0.01		
37	July 20, 1609	Calabria centrale	16090720_0000_000	SCIAL006	5	5	38.925	16.373	38.925	16.373			0			5.8	5.8		0		
38	October 03, 1624	Monti Iblei settentrionali	16241003_1700_000	CFTI4med	3	3	37.27	14.742	37.27	14.742			0			5.56	5.56		0		
39	April 04, 1626	Calabria centrale	16260404_1245_000	CFTI4med	7	6	38.851	16.456	38.88	16.486			4.2			6.07	5.78		0.29		
40	July 30, 1627	Capitanata	16270730_1050_000	CFTI4med	64	60	41.737	15.342	41.737	15.342			0			6.66	6.65		0.01		
41	August 07, 1627	Capitanata	16270807_1640_000	CFTI4med	5	5	41.758	15.328	41.758	15.328			0			6.03	6.03		0		
42	March 27, 1638	Calabria centrale	16380327_1505_000	CFTI4med	213	204	39.048	16.289	39.068	16.298			2.4			7.09	7.11		-0.02		
43	June 08, 1638	Crotonese	16380608_0945_000	CFTI4med	41	41	39.279	16.812	39.279	16.812			0			6.76	6.76		0		
44	October 07, 1639	Monti della Laga	16391007_0000_000	CAST003b	39	30	42.639	13.261	42.639	13.261			0			6.21	6.21		0		
45	June 19, 1640	Calabria centrale	16400619_0000_000	CAMAL011b	3	3	38.632	16.491	38.632	16.491			0			5.8	5.8		0		
46	April 28, 1646	Monti della Laga	16460428_0700_000	CAMAL011b	10	9	42.615	13.247	42.615	13.247			0			5.9	5.9		0		
47	May 31, 1646	Gargano	16460531_0000_000	CAMAL008	35	20	41.905	15.993	41.927	15.932			5.6			6.72	6.71				

94	December 25, 1786	Riminese	17861225_0100_000	CFTI4med	90	90	43.991	12.565	43.991	12.565			0			5.66	5.66	0		
95	September 30, 1789	Alta Valtiberina	17890930_1000_000	CAST002	73	66	43.51	12.217	43.51	12.217			0			5.89	5.89	0		
96	October 11, 1791	Appennino umbro-marchigiano	17911011_1305_000	CFTI4med	54	53	42.95	12.861	42.95	12.861			0			5.57	5.57	0		
97	October 13, 1791	Calabria centrale	17911013_0120_000	CFTI4med	76	75	38.636	16.268	38.636	16.268			0			6.14	6.14	0		
98	June 07, 1794	Prealpi Friulane	17940607_0045_000	CFTI4med	19	19	46.306	12.821	46.306	12.821			0			5.96	5.96	0		
99	July 28, 1799	Appennino marchigiano	17990728_2205_000	CFTI4med	70	67	43.193	13.152	43.2	13.146			0.9			6.18	6.18	0		
100	May 12, 1802	Valle dell'Oglio	18020512_0930_000	ALBRV010	94	92	45.424	9.839	45.424	9.839			0			5.6	5.6	0		
101	July 26, 1805	Molise	18050726_2100_000	CFTI4med	220	214	41.5	14.474	41.5	14.474			0			6.68	6.68	0		
102	August 26, 1806	Colli Albani	18060826_0735_000	CFTI4med	35	35	41.718	12.725	41.718	12.725			0			5.61	5.61	0		
103	April 02, 1808	Val Pellice	18080402_1643_000	CFTI4med	105	102	44.838	7.249	44.838	7.249			0			5.64	5.64	0		
104	October 25, 1812	Pordenonese	18121025_0700_000	AMGNDT995	34	32	46.027	12.589	46.027	12.589			0			5.62	5.61	0.01		
105	September 03, 1815	Valnerina	18150903_2300_000	CFTI4med	24	24	42.832	13.015	42.832	13.015			0			5.58	5.58	0		
106	February 20, 1818	Catanese	18180220_1815_000	CFTI4med	128	127	37.603	15.14	37.603	15.14			0			6.28	6.28	0		
107	March 01, 1818	Monti Iblei	18180301_0245_000	CFTI4med	24	22	37.204	14.756	37.226	14.729			3.4			5.57	5.56	0.01		
108	November 22, 1821	Costa molisana	18211122_0115_000	CAMAL011b	9	9	41.975	15.214	41.975	15.214			0			5.59	5.59	0		
109	February 01, 1826	Potentino	18260201_1600_000	CFTI4med	18	18	40.52	15.727	40.52	15.727			0			5.74	5.74	0		
110	October 09, 1828	Oltrepò Pavese	18281009_0220_000	CFTI4med	110	109	44.821	9.047	44.821	9.047			0			5.72	5.72	0		
111	January 02, 1831	Appennino lucano	18310102_1407_000	PORAL988	13	13	40.082	15.786	40.082	15.786			0			5.53	5.53	0		
112	May 26, 1831	Liguria occidentale	18310526_1030_000	CFTI4med	33	32	43.855	7.849	43.855	7.849			0			5.56	5.56	0		
113	January 13, 1832	Valle Umbra	18320113_1300_000	CFTI4med	101	96	42.98	12.605	42.98	12.605			0			6.43	6.42	0.01		
114	March 08, 1832	Crotonese	18320308_1830_000	CFTI4med	99	98	39.079	16.919	39.079	16.919			0			6.65	6.65	0		
115	March 13, 1832	Reggiano	18320313_0330_000	CFTI4med	97	97	44.765	10.494	44.765	10.494			0			5.51	5.51	0		
116	February 14, 1834	Val di Taro-Lunigiana	18340214_1315_000	CFTI4med	112	112	44.432	9.859	44.432	9.859			0			5.96	5.96	0		
117	October 12, 1835	Cosentino	18351012_2235_000	CFTI4med	36	32	39.33	16.293	39.324	16.297			0.8			5.89	5.88	0.01		
118	April 25, 1836	Calabria settentrionale	18360425_0020_000	CFTI4med	44	42	39.567	16.737	39.567	16.737			0			6.18	6.18	0		
119	June 12, 1836	Asolano	18360612_0230_000	AMGNDT995	26	26	45.803	11.825	45.803	11.825			0			5.53	5.53	0		
120	November 20, 1836	Appennino lucano	18361120_0730_000	CFTI4med	17	16	40.142	15.776	40.142	15.776			0			5.86	5.86	0		
121	April 11, 1837	Lunigiana	18370411_1700_000	CFTI4med	60	58	44.175	10.182	44.21	10.184			3.8			5.94	5.74	0.2		
122	August 14, 1846	Colline Pisane	18460814_1200_000	CFTI4med	121	108	43.47	10.563	43.462	10.58			1.6			6.04	6.07	-0.03		
123	August 14, 1851	Vulture	18510814_1320_000	CFTI4med	103	103	40.96	15.669	40.96	15.669			0			6.52	6.52	0		
124	April 09, 1853	Irpinia	18530409_1245_000	CFTI4med	47	46	40.818	15.215	40.818	15.215			0			5.6	5.6	0		
125	February 12, 1854	Valle Umbra	18540212_0500_000	CFTI4med	21	21	43.055	12.543	43.055	12.543			0			5.57	5.57	0		
126	February 12, 1854	Cosentino	18540212_1750_000	CFTI4med	89	88	39.256	16.295	39.256	16.295			0			6.34	6.34	0		
127	December 16, 1857	Basilicata	18571216_2115_001	CFTI4med	340	311	40.352	15.842	40.354	15.827			1.3			7.12	6.74	0.38		
128	August 22, 1859	Valnerina	18590822_0000_000	AMGNDT995	20	20	42.825	13.097	42.825	13.097			0			5.73	5.73	0		
129	October 04, 1870	Cosentino	18701004_1655_000	CFTI4med	54	49	39.22	16.331	39.22	16.331			0			6.24	6.28	-0.04		
130	October 30, 1870	Forlivese	18701030_1834_000	CFTI4med	41	40	44.133	12.062	44.133	12.062			0			5.61	5.61	0		
131	March 12, 1873	Appennino marchigiano	18730312_2004_000	CFTI4med	196	178	43.089	13.244	43.089	13.244			0			5.85	5.83	0.02		
132	June 29, 1873	Alpago Cansiglio	18730629_0358_000	CFTI4med	197	191	46.16	12.383	46.16	12.383			0			6.29	6.29	0		
133	March 17, 1875	Costa romagnola	18750317_2351_000	CFTI4med	144	135	44.063	12.547	44.063	12.547			0			5.72	5.72	0		
134	December 06, 1875	Gargano	18751206_0000_000	MELMO985	97	87	41.689	15.677	41.689	15.677			0			5.86	5.82	0.04		
135	February 23, 1879	Valnerina	18790223_1830_000	CFTI4med	15	15	42.766	13.043	42.766	13.043			0			5.59	5.59	0		
136	March 06, 1886	Cosentino	18860306_0000_000	AMGNDT995	10	10	39.338	16.191	39.338	16.191			0			5.57	5.57	0		
137	February 23, 1887	Liguria occidentale	18870223_0521_000	CFTI4med	1511	1447	43.891	7.992	43.903	7.965			2.5			6.27	6.26	0.01		
138	December 03, 1887	Calabria settentrionale	18871203_0345_000	CFTI4med	142	120	39.564	16.221	39.502	16.124			10.8			5.55	5.35	0.2		
139	June 07, 1891	Valle d'Illasi	18910607_0106_000	CFTI4med	403	393	45.564	11.165	45.564	11.165			0			5.87	5.88	-0.01		
140	November 16, 1894	Calabria meridionale	18941116_1752_000	CFTI4med	303	302	38.288	15.87	38.288	15.87			0			6.12	6.12	0		
141	May 18, 1895	Fiorentino	18950518_1955_000	CFTI4med	401	388	43.703	11.264	43.703	11.264			0			5.5	5.5	0		
142	June 27, 1898	Reatino	18980627_2338_000	SPAAL985c	186	147	42.414	12.903	42.414	12.903			0			5.5	5.5	0		
143	February 24, 1904	Marsica	19040224_1553_000	CFTI4med	56	44	42.097	13.316	42.097	13.316			0			5.71	5.71	0		
144	September 08, 1905	Calabria centrale	19050908_0143_000	GALMO007	895	780	38.683	16.053	38.69	16.032			2			6.88	6.7	0.18		
145	October 23, 1907	Aspromonte	19071023_2028_000	CFTI4med	274	270	38.086	15.985	38.086	15.985			0			5.96	5.96	0		
146	December 28, 1908	Stretto di Messina	19081228_0420_000	CFTI4med	772	759	38.146	15.687	38.117	15.694			3.3			7.12	7.12	0		
147	June 07, 1910	Irpinia-Basilicata	19100607_0204_000	CFTI4med	376	365	40.898	15.422	40.898	15.422			0			5.7	5.7	0		
148	June 28, 1913	Calabria settentrionale	19130628_0853_000	CFTI4med	151	141	39.531	16.239	39.531	16.239			0			5.67	5.67	0		
149	October 27, 1914	Lucchesia	19141027_0922_000	MEAL988	660	547	43.912	10.598	43.912	10.598			0			5.56	5.51	0.05		
150	January 13, 1915	Marsica	19150113_0652_000	MOLAL999b	1041	969	42.014	13.531	42.016	13.584			4.4			7.11	6.93	0.18		
151	May 17, 1916	Riminese	19160517_1250_000	CFTI4med	132	129	44.01	12.623	44.01	12.623			0			5.68	5.69	-0.01		
152	August 16, 1916	Riminese	19160816_0706_000	CFTI4med	257	253	43.961	12.671	43.961	12.671			0			5.67	5.67	0		
153	November 16, 1916	Alto Reatino	19161116_0635_000	SGA002	40	38	42.646	13.169	42.646	13.169			0			5.54	5.54	0		
154	April 26, 1917	Alta Valtiberina	19170426_0935_000	CFTI4med	134	114	43.467	12.129	43.467	12.129			0			6.09	6.11	-0.02		
155	November 10, 1918	Appennino forlivese	19181110_1512_000	CFTI4med	187	184	43.917	11.933	43.917	11.933			0			6	6	0		
156	June 29, 1919	Mugello	19190629_1506_000	CFTI4med	565	497	43.957	11.482	43.957	11.482			0			6.43	6.43	0		
157	September 07, 1920	Garfagnana	19200907_0555_000	CFTI4med	750	729	44.186	10.278	44.214	10.226			5.2			6.56	6.55	0.01		
158	March 07, 1928	Calabria centro-meridionale	19280307_1055_000	BARAL980	30	30	38.544	16.037	38.544	16.037			0			5.63	5.63	0		
159	March 27, 1928	Carnia	19280327_0832_000	BARAL990	359	337	46.372	12.975	46.372	12.975			0			5.99	6.01	-0.02		
160	July 23, 1930	Irpinia	19300723_0008_000	GALAL002	547	513	41.068	15.318	41.083	15.26			5.1			6.69	6.69	0		
161	October 30, 1930	Senigallia	19301030_0713_000	MOLMU992	268	254	43.661	13.331	43.661	13.331			0			5.75	5.75	0		
162	September 26, 1933	Maiella	19330926_0333_000	CFTI4med	325	318	42.079													