

Event Summary

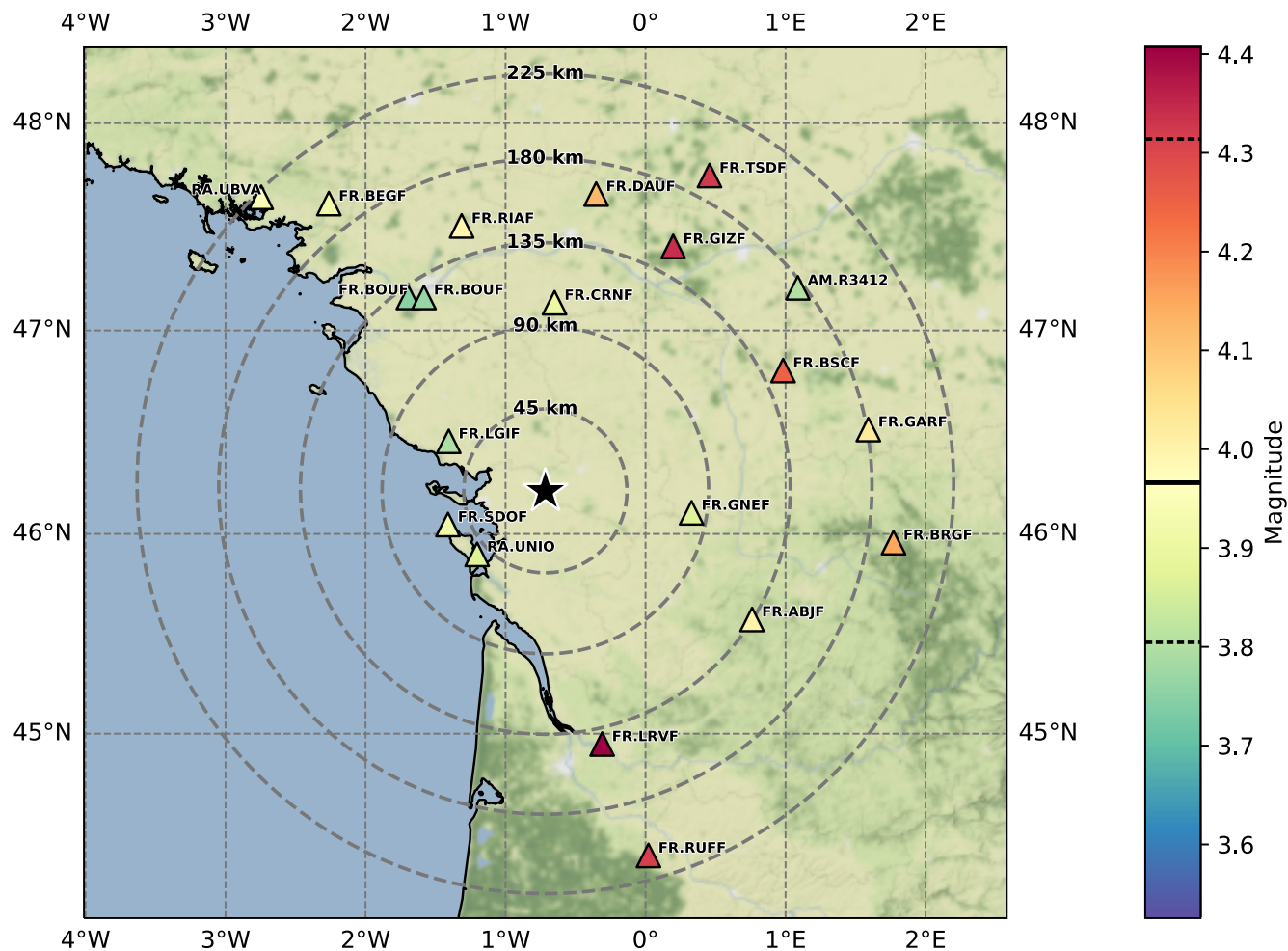
| | |
|--------------------------|--|
| Event ID: | fr2023lzpkej  |
| Longitude: | -0.715 °E |
| Latitude: | 46.211 °N |
| Depth: | 0.0 km |
| Origin Time: | 2023-06-17T02:27:04.541375Z |
| Moment Magnitude: | 3.97 [- 0.16, + 0.35] |
| Corner Frequency: | 2.345 [- 0.946, + 2.386] Hz |

Moment Magnitude

Mw 3.97 [- 0.16, + 0.35]

evid: fr2023lzpkej

lon: -0.715 lat: 46.211 depth: 0.0 km time: 2023-06-17T02:27:04.541



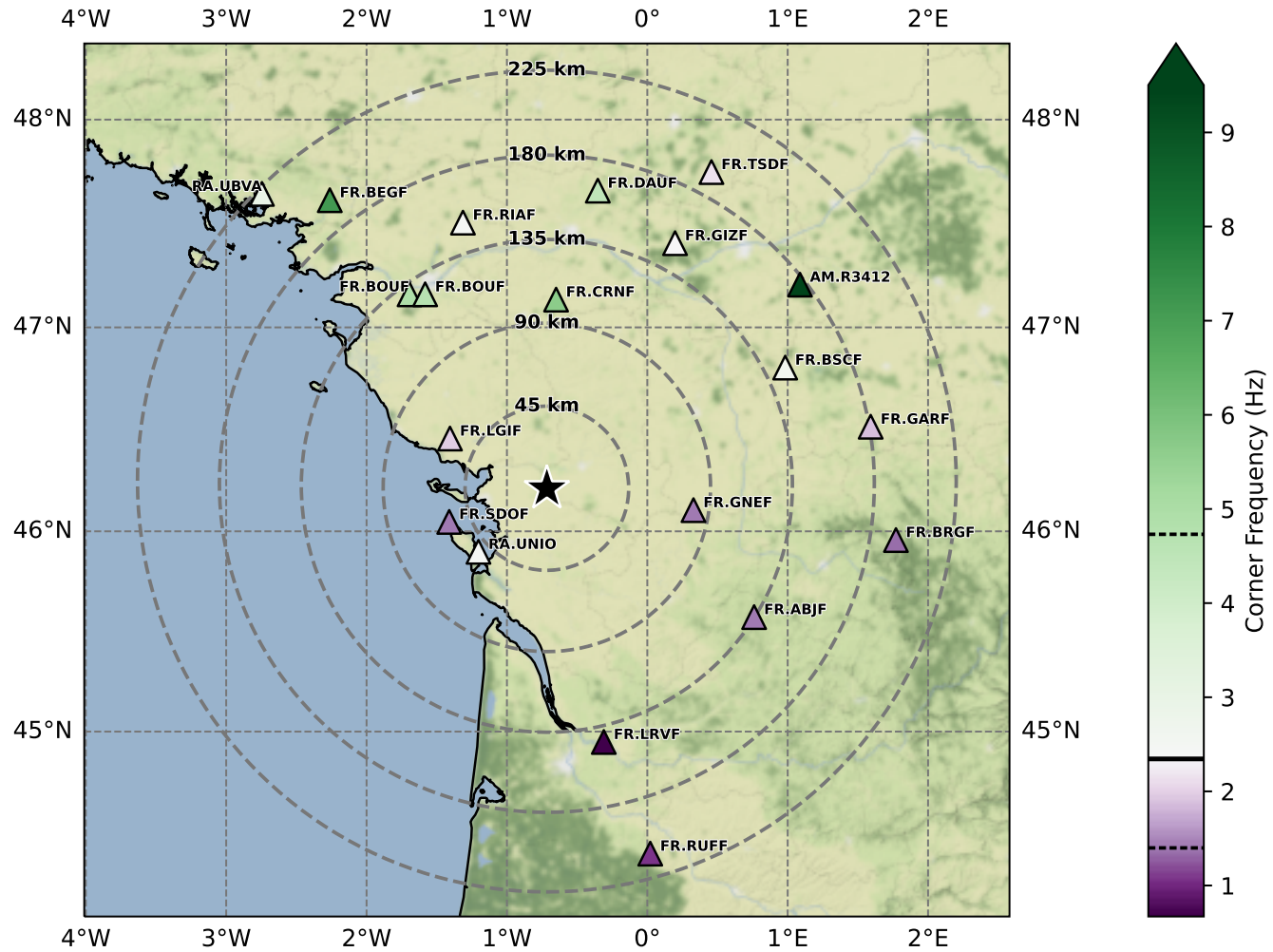
SourceSpec v1.7+37.gc9178a9 - 2023-06-17 09:43:16 CEST
Claudio Satriano - IPGP

Corner Frequency

fc 2.345 [- 0.946, + 2.386] Hz

evid: fr2023lzpka

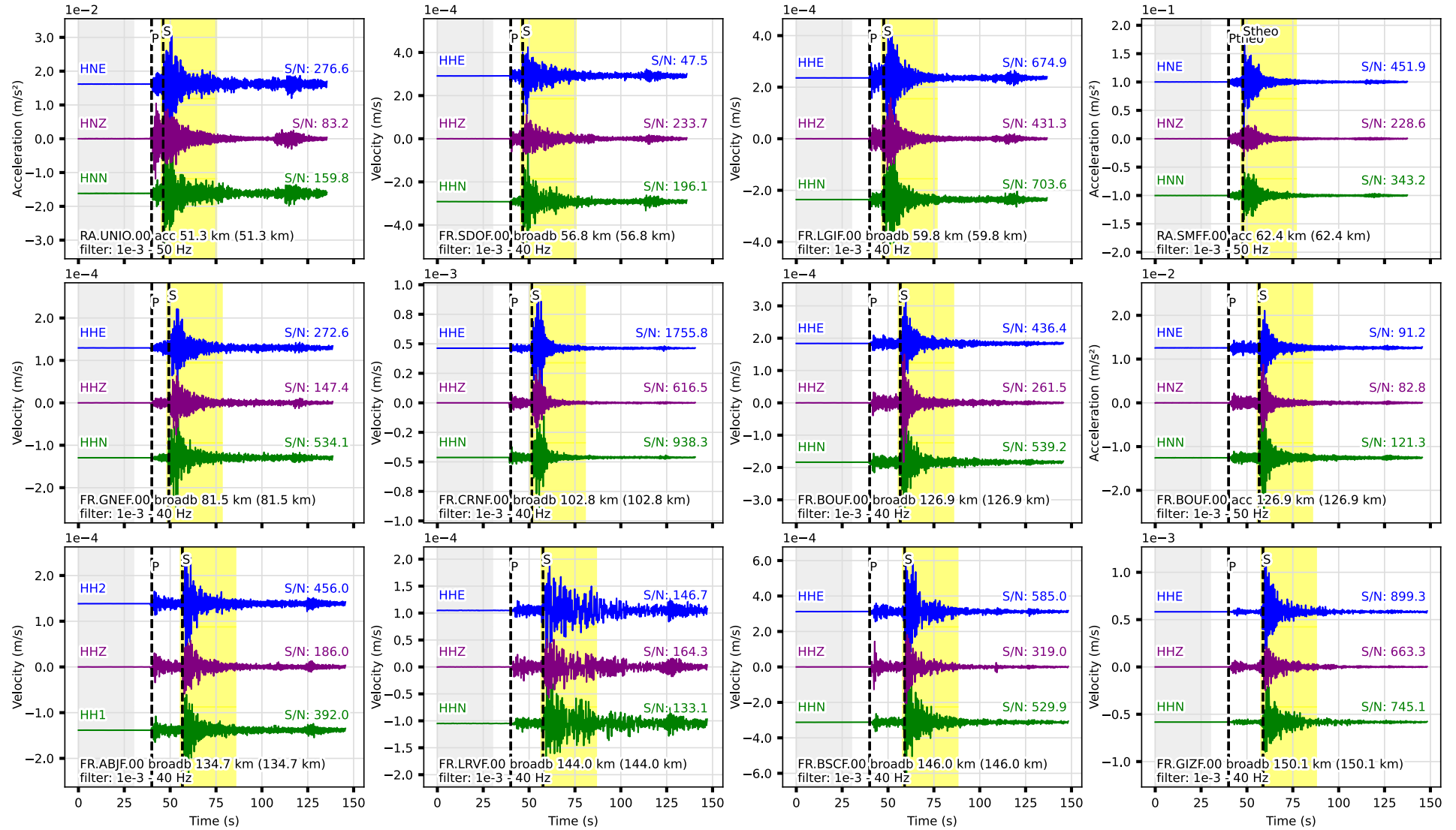
lon: -0.715 lat: 46.211 depth: 0.0 km time: 2023-06-17T02:27:04.541



SourceSpec v1.7+37.gc9178a9 - 2023-06-17 09:43:16 CEST
Claudio Satriano - IPGP

Traces (1 of 2)

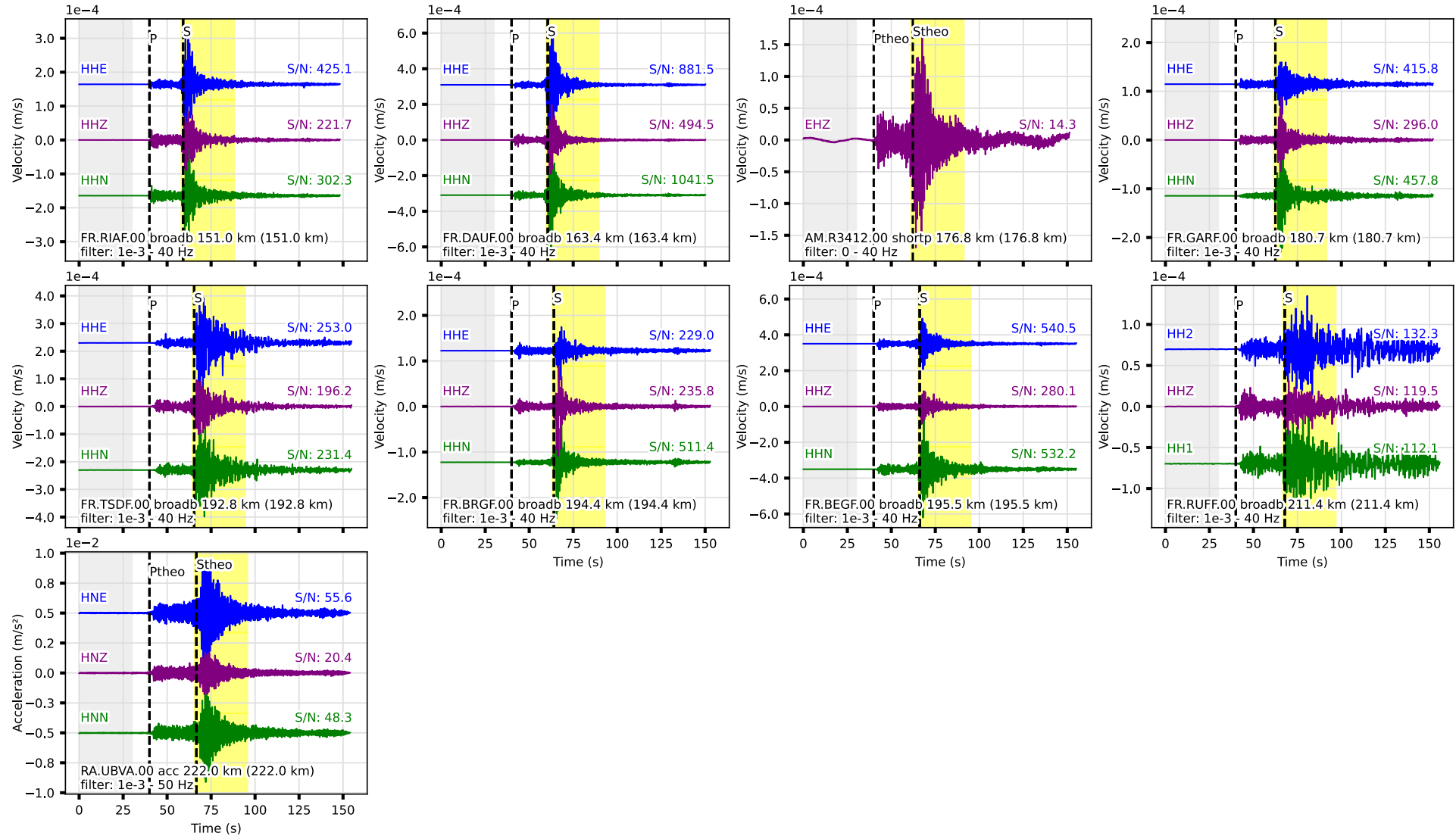
evid: fr2023lzpkej lon: -0.715 lat: 46.211 depth: 0.0 km time: 2023-06-17T02:27:04.541



SourceSpec v1.7+37.gc9178a9
Claudio Satriano - IPGP

Traces (2 of 2)

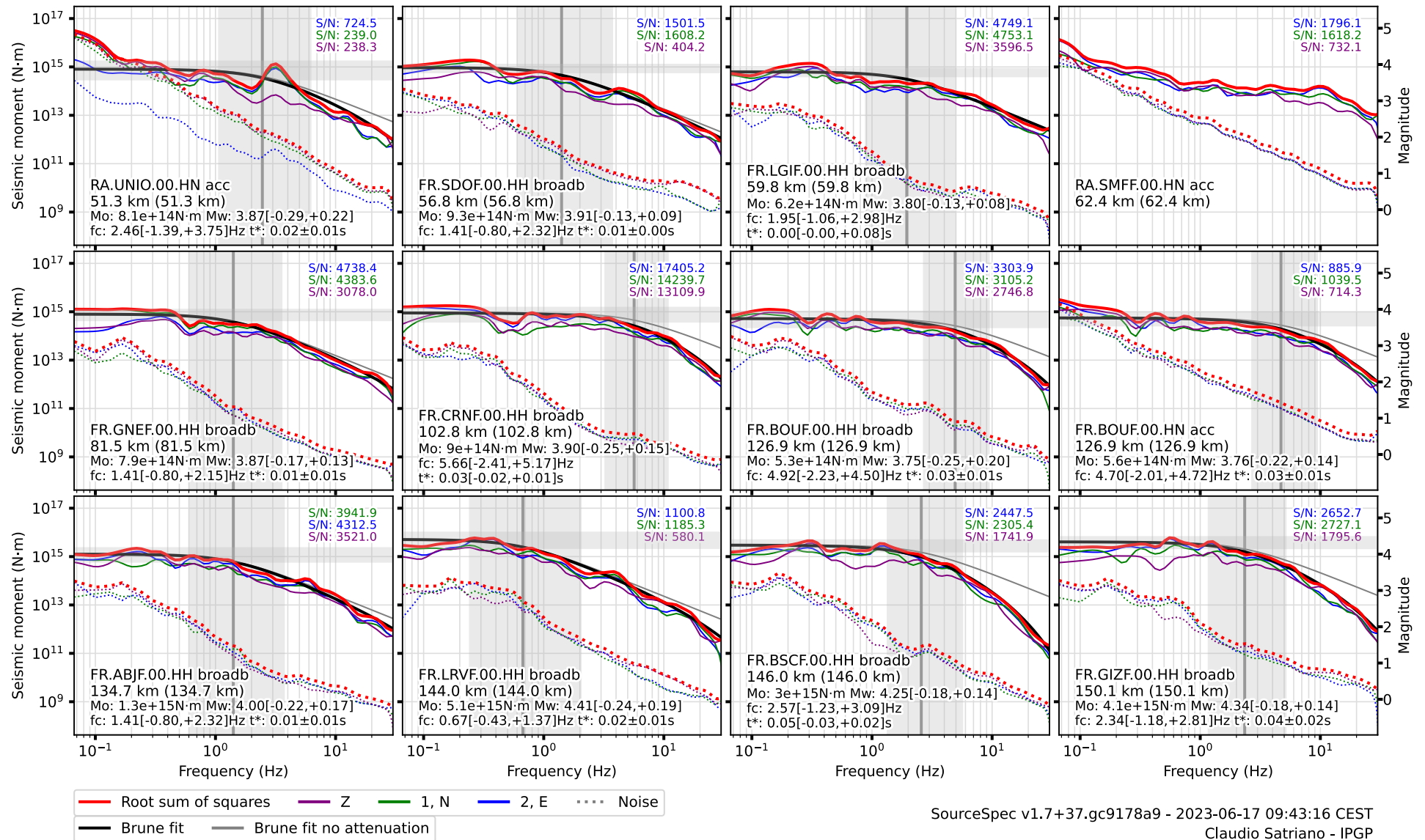
evid: fr2023lzpkej lon: -0.715 lat: 46.211 depth: 0.0 km time: 2023-06-17T02:27:04.541



SourceSpec v1.7+37.gc9178a9
Claudio Satriano - IPGP

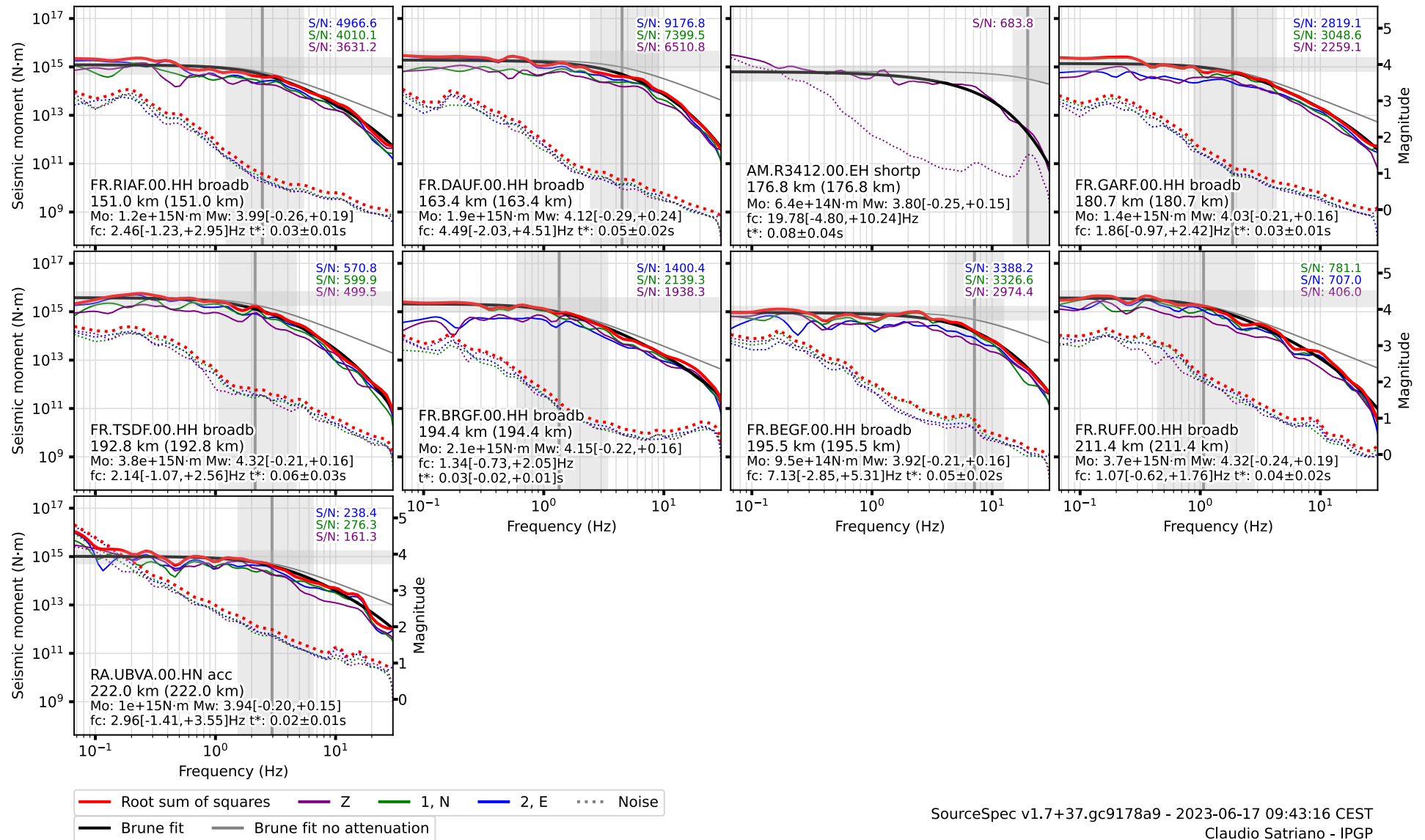
Spectra (1 of 2)

evid: fr2023lzpkej lon: -0.715 lat: 46.211 depth: 0.0 km time: 2023-06-17T02:27:04.541



Spectra (2 of 2)

evid: fr2023lzpkej lon: -0.715 lat: 46.211 depth: 0.0 km time: 2023-06-17T02:27:04.541



SourceSpec v1.7+37.gc9178a9 - 2023-06-17 09:43:16 CEST
Claudio Satriano - IPGP

Inversion Information

| | |
|------------------------------|-----------------|
| Algorithm: | Grid search |
| Weighting: | Noise weighting |
| t-star-0: | 0.045 s |
| Invert t-star-0: | False |
| t-star-0 variability: | 10.0 % |
| t-star min, max: | [0.001, 0.2] s |
| fc min, max: | [0.05, 50.0] Hz |
| Qo min, max: | - |

Summary Spectral Parameters

Note: the highlighted column indicates the reference parameters used for [Event Summary](#) and [Map Plots](#).

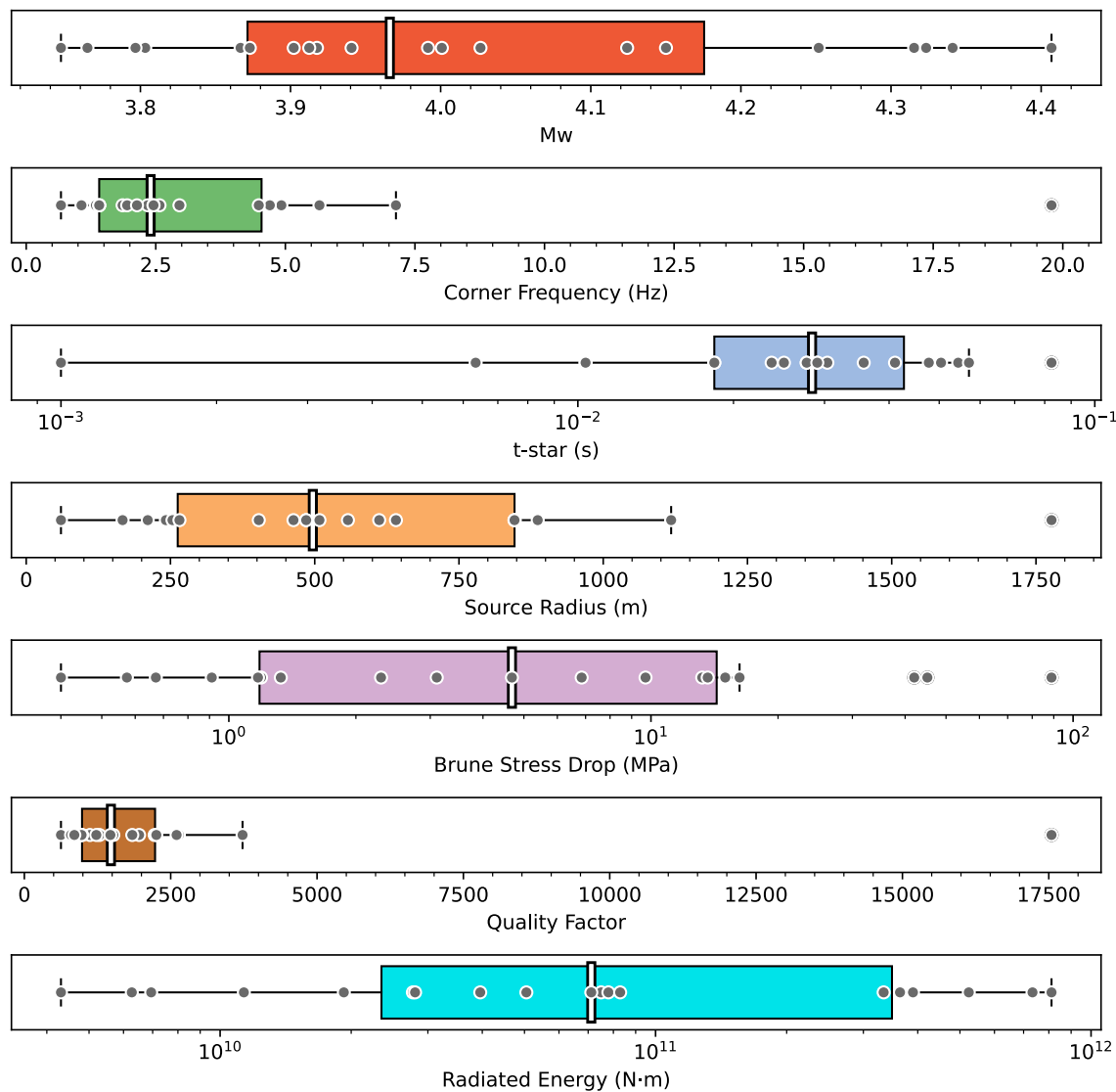
| | Mean (1 sigma) | Weighted Mean (1 sigma) | Percentiles (50%, [15.9%, 84.1%]) |
|------------------------------|---------------------------------------|---------------------------------------|---|
| Mw | 4.02 ±0.20 | 4.00 ±0.20 | 3.97 -0.16 +0.35 |
| Seismic Moment (N·m) | 1.270e+15 -6.104e+14 +1.175e+15 | 1.184e+15 -5.662e+14 +1.085e+15 | 1.026e+15 -3.895e+14 +2.080e+15 |
| Corner Frequency (Hz) | 2.328 -1.054 +1.926 | 2.860 -1.295 +2.368 | 2.345 -0.946 +2.386 |
| t-star (s) | 0.029 ±0.016 | 0.014 ±0.011 | 0.028 -0.017 +0.020 |
| Qo | 1609.3 ±775.5 | 1016.8 ±401.0 | 1470.0 -514.8 +832.7 |

| | Mean (1 sigma) | Weighted Mean (1 sigma) | Percentiles (50%, [15.9%, 84.1%]) |
|--------------------------------|---------------------------------------|---------------------------------------|--|
| Source Radius (m) | 428.420 -215.888 +435.184 | 275.798 -164.536 +407.853 | 485.193 -247.482 +361.109 |
| Brune Stress Drop (MPa) | 2.903e+00 -2.073e+00 +7.253e+00 | 3.671e+00 -2.616e+00 +9.110e+00 | 2.701e+00 -1.938e+00 +1.077e+01 |
| Radiated Energy (N·m) | 6.552e+10 -5.252e+10 +2.646e+11 | | 7.118e+10 -6.045e+10 +3.373e+11 |

Spectral Parameter Box Plots

evid: fr2023lzpka

lon: -0.715 lat: 46.211 depth: 0.0 km time: 2023-06-17T02:27:04.541



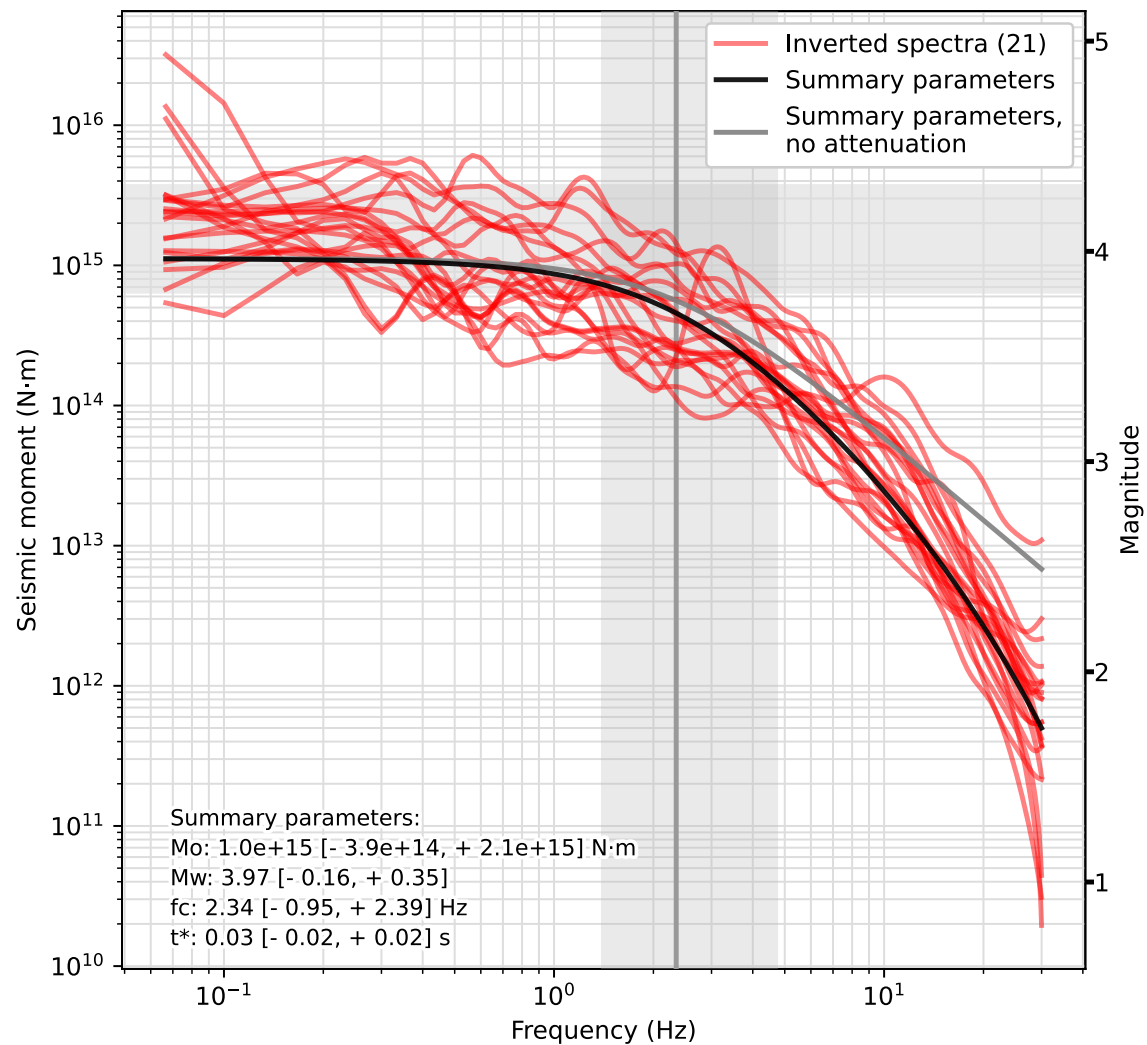
SourceSpec v1.7+37.gc9178a9 - 2023-06-17 09:43:16 CEST
Claudio Satriano - IPGP

Stacked Spectra

evid: fr2023lzpkej

lon: -0.715 lat: 46.211 depth: 0.0 km

time: 2023-06-17T02:27:04.541



SourceSpec v1.7+37.gc9178a9 - 2023-06-17 09:43:16 CEST

Claudio Satriano - IPGP

Station Parameters

Note: outliers are greyed out

| Station | Type | Mw | Corner Frequency (Hz) | t-star (s) | Qo | Seismic Moment (N·m) | Brune stress drop (MPa) | Source radius (m) | Radiated Energy (N·m) | Hypocentral Distance (km) | Azimuth (°) |
|-----------------|--------|--------|-----------------------|------------|---------|----------------------|-------------------------|-------------------|-----------------------|---------------------------|-------------|
| AM.R3412.00.EHH | shortp | 3.803 | 19.783 | 0.082 | 625.6 | 6.381e+14 | 1.277e+03 | 60.239 | 1.033e+13 | 176.815 | 50.584 |
| | | -0.255 | -4.804 | -0.039 | -195.2 | -3.733e+14 | -1.047e+03 | -20.550 | | | |
| | | +0.153 | +10.243 | +0.037 | +554.0 | +4.435e+14 | +6.292e+03 | +19.319 | | | |
| FR.ABJF.00.HHH | broadb | 4.001 | 1.408 | 0.010 | 3727.7 | 1.262e+15 | 9.112e-01 | 846.302 | 1.134e+10 | 134.721 | 121.192 |
| | | -0.216 | -0.797 | -0.007 | -1269.1 | -6.633e+14 | -8.758e-01 | -526.628 | | | |
| | | +0.173 | +2.320 | +0.005 | +6780.7 | +1.029e+15 | +2.978e+01 | +1103.279 | | | |
| FR.BEGF.00.HHH | broadb | 3.918 | 7.134 | 0.050 | 1120.1 | 9.472e+14 | 8.890e+01 | 167.043 | 7.338e+11 | 195.462 | 323.500 |
| | | -0.209 | -2.850 | ±0.024 | -361.7 | -4.863e+14 | -7.954e+01 | -71.275 | | | |
| | | +0.156 | +5.310 | | +1020.9 | +6.787e+14 | +7.210e+02 | +111.123 | | | |
| FR.BOUF.00.HHH | broadb | 3.747 | 4.923 | 0.029 | 1282.5 | 5.256e+14 | 1.621e+01 | 242.048 | 7.500e+10 | 126.943 | 326.557 |
| | | -0.245 | -2.229 | -0.015 | -403.9 | -3.004e+14 | -1.508e+01 | -115.568 | | | |
| | | +0.196 | +4.499 | +0.013 | +1312.4 | +5.099e+14 | +2.077e+02 | +200.180 | | | |
| FR.BOUF.00.HNH | acc | 3.765 | 4.700 | 0.025 | 1487.7 | 5.586e+14 | 1.500e+01 | 253.533 | 7.793e+10 | 126.943 | 326.557 |
| | | -0.215 | -2.006 | -0.013 | -444.9 | -2.928e+14 | -1.365e+01 | -127.053 | | | |
| | | +0.143 | +4.722 | +0.011 | +1700.4 | +3.579e+14 | +1.832e+02 | +188.694 | | | |
| FR.BRGF.00.HHH | broadb | 4.150 | 1.344 | 0.028 | 1960.2 | 2.114e+15 | 1.328e+00 | 886.461 | 2.771e+10 | 194.392 | 97.469 |
| | | -0.219 | -0.733 | -0.016 | -637.5 | -1.123e+15 | -1.269e+00 | -535.729 | | | |
| | | +0.164 | +2.053 | +0.013 | +2688.7 | +1.617e+15 | +3.651e+01 | +1063.121 | | | |
| FR.BSCF.00.HHH | broadb | 4.252 | 2.573 | 0.054 | 798.2 | 3.004e+15 | 1.322e+01 | 463.212 | 3.900e+11 | 146.033 | 62.548 |
| | | -0.184 | -1.228 | -0.025 | -244.6 | -1.413e+15 | -1.222e+01 | -252.593 | | | |
| | | +0.138 | +3.085 | +0.024 | +697.3 | +1.834e+15 | +2.133e+02 | +423.248 | | | |

| Station | Type | Mw | Corner Frequency (Hz) | t-star (s) | Qo | Seismic Moment (N·m) | Brune stress drop (MPa) | Source radius (m) | Radiated Energy (N·m) | Hypocentral Distance (km) | Azimuth (°) |
|----------------|--------|--------|-----------------------|------------|----------|----------------------|-------------------------|-------------------|-----------------------|---------------------------|-------------|
| FR.CRNF.00.HHH | broadb | 3.902 | 5.658 | 0.030 | 971.4 | 8.978e+14 | 4.204e+01 | 210.619 | 3.340e+11 | 102.794 | 2.780 |
| | | -0.247 | -2.414 | -0.016 | -316.6 | -5.155e+14 | -3.867e+01 | -100.562 | | | |
| | | +0.148 | +5.170 | +0.015 | +1084.5 | +6.006e+14 | +4.497e+02 | +156.755 | | | |
| FR.DAUF.00.HHH | broadb | 4.124 | 4.487 | 0.048 | 988.2 | 1.933e+15 | 4.516e+01 | 265.564 | 8.114e+11 | 163.430 | 9.601 |
| | | -0.294 | -2.031 | -0.023 | -305.5 | -1.234e+15 | -4.249e+01 | -133.082 | | | |
| | | +0.236 | +4.508 | +0.021 | +896.1 | +2.428e+15 | +7.755e+02 | +219.629 | | | |
| FR.GARF.00.HHH | broadb | 4.027 | 1.860 | 0.028 | 1843.7 | 1.380e+15 | 2.294e+00 | 640.796 | 2.804e+10 | 180.694 | 78.391 |
| | | -0.209 | -0.974 | -0.015 | -557.8 | -7.100e+14 | -2.174e+00 | -362.630 | | | |
| | | +0.157 | +2.424 | +0.012 | +2080.3 | +9.929e+14 | +4.593e+01 | +704.654 | | | |
| FR.GIZF.00.HHH | broadb | 4.341 | 2.345 | 0.036 | 1229.3 | 4.088e+15 | 1.363e+01 | 508.216 | 5.239e+11 | 150.142 | 27.330 |
| | | -0.183 | -1.175 | -0.017 | -402.0 | -1.913e+15 | -1.273e+01 | -277.134 | | | |
| | | +0.137 | +2.812 | +0.017 | +1162.4 | +2.473e+15 | +2.190e+02 | +510.521 | | | |
| FR.GNEF.00.HHH | broadb | 3.867 | 1.408 | 0.010 | 2226.0 | 7.945e+14 | 5.734e-01 | 846.302 | 4.311e+09 | 81.537 | 97.979 |
| | | -0.172 | -0.797 | -0.007 | -757.9 | -3.558e+14 | -5.475e-01 | -511.459 | | | |
| | | +0.129 | +2.151 | +0.005 | +4049.2 | +4.458e+14 | +1.388e+01 | +1103.279 | | | |
| FR.LGIF.00.HHH | broadb | 3.797 | 1.948 | 0.001 | 17546.8 | 6.238e+14 | 1.192e+00 | 611.766 | 6.946e+09 | 59.755 | 297.472 |
| | | -0.127 | -1.062 | -0.000 | -17340.7 | -2.222e+14 | -1.120e+00 | -369.719 | | | |
| | | +0.085 | +2.975 | +0.084 | +0.0 | +2.129e+14 | +2.462e+01 | +733.683 | | | |
| FR.LRVF.00.HHH | broadb | 4.407 | 0.671 | 0.018 | 2255.0 | 5.133e+15 | 4.002e-01 | 1776.940 | 1.924e+10 | 143.954 | 167.155 |
| | | -0.243 | -0.429 | -0.011 | -760.8 | -2.912e+15 | -3.921e-01 | -1192.889 | | | |
| | | +0.194 | +1.370 | +0.009 | +3138.1 | +4.899e+15 | +2.163e+01 | +3150.551 | | | |
| FR.RIAF.00.HHH | broadb | 3.992 | 2.456 | 0.029 | 1520.0 | 1.223e+15 | 4.684e+00 | 485.193 | 5.050e+10 | 151.045 | 342.650 |
| | | -0.257 | -1.231 | -0.015 | -510.6 | -7.192e+14 | -4.445e+00 | -264.579 | | | |
| | | +0.193 | +2.946 | +0.015 | +1555.5 | +1.155e+15 | +9.222e+01 | +487.393 | | | |

| Station | Type | Mw | Corner Frequency (Hz) | t-star (s) | Qo | Seismic Moment (N·m) | Brune stress drop (MPa) | Source radius (m) | Radiated Energy (N·m) | Hypocentral Distance (km) | Azimuth (°) |
|----------------|--------|--------|-----------------------|------------|---------|----------------------|-------------------------|-------------------|-----------------------|---------------------------|-------------|
| FR.RUFF.00.HHH | broadb | 4.315 | 1.066 | 0.041 | 1470.0 | 3.742e+15 | 1.172e+00 | 1117.714 | 3.957e+10 | 211.353 | 163.875 |
| | | -0.240 | -0.624 | -0.021 | -459.9 | -2.111e+15 | -1.136e+00 | -695.520 | | | |
| | | +0.192 | +1.756 | +0.019 | +1594.7 | +3.530e+15 | +4.110e+01 | +1579.286 | | | |
| FR.SDOF.00.HHH | broadb | 3.912 | 1.408 | 0.006 | 2639.5 | 9.304e+14 | 6.716e-01 | 846.302 | 6.269e+09 | 56.788 | 251.452 |
| | | -0.132 | -0.797 | -0.004 | -782.2 | -3.405e+14 | -6.367e-01 | -526.628 | | | |
| | | +0.088 | +2.320 | +0.003 | +4528.2 | +3.302e+14 | +1.621e+01 | +1103.279 | | | |
| FR.TSDF.00.HHH | broadb | 4.323 | 2.137 | 0.057 | 977.4 | 3.847e+15 | 9.708e+00 | 557.593 | 3.642e+11 | 192.848 | 27.122 |
| | | -0.209 | -1.071 | -0.027 | -300.8 | -1.980e+15 | -9.123e+00 | -304.059 | | | |
| | | +0.157 | +2.563 | +0.025 | +859.3 | +2.769e+15 | +1.679e+02 | +560.121 | | | |
| RA.UBVA.00.HNH | acc | 3.941 | 2.957 | 0.024 | 2600.7 | 1.026e+15 | 6.852e+00 | 403.067 | 7.118e+10 | 222.003 | 316.606 |
| | | -0.199 | -1.412 | -0.013 | -808.0 | -5.090e+14 | -6.360e+00 | -219.795 | | | |
| | | +0.149 | +3.546 | +0.011 | +3356.3 | +6.897e+14 | +1.151e+02 | +368.292 | | | |
| RA.UNIO.00.HNH | acc | 3.873 | 2.456 | 0.018 | 854.3 | 8.116e+14 | 3.109e+00 | 485.193 | 8.293e+10 | 51.287 | 227.507 |
| | | -0.290 | -1.390 | -0.011 | -314.2 | -5.137e+14 | -3.015e+00 | -293.224 | | | |
| | | +0.218 | +3.752 | +0.011 | +1188.8 | +9.094e+14 | +1.033e+02 | +632.521 | | | |