Data Screening

Steve Purves Charlotte Wickham

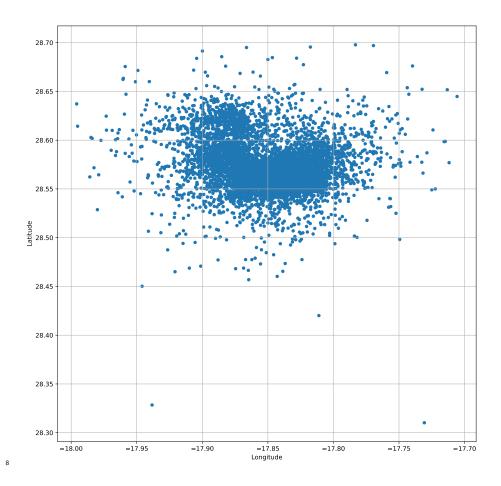
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7 Import la-palma.csv-a clean subset of catalogoComunSV_1663233588717.csv:

	Longitude	Latitude	$\mathrm{Depth}(\mathrm{km})$	Magnitude	DateTime
11346	-17.8349	28.5346	26.0	1.6	2017-03-09 23:44:06+00:00
11343	-17.8459	28.5491	27.0	2.0	2017-03-10 00:16:10+00:00
11344	-17.8863	28.5008	20.0	2.1	2017-03-10 00:16:11+00:00
11345	-17.8657	28.5204	30.0	1.6	2017-03-10 03:20:26+00:00
11342	-17.7156	28.5985	0.0	1.6	2017-08-21 02:06:55+00:00

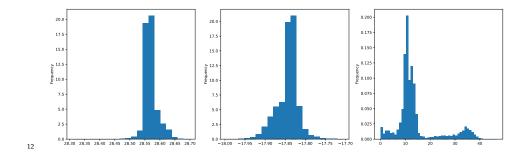
	Longitude	Latitude	Depth(km)	Magnitude
count	11347.000000	11347.000000	11347.000000	11347.000000
mean	-17.844062	28.568893	14.089345	2.432423
std	0.027345	0.021899	8.624787	0.705282
\min	-17.995800	28.310200	0.000000	0.200000
25%	-17.854100	28.558000	10.100000	1.900000
50%	-17.838700	28.564000	11.300000	2.600000
75%	-17.829700	28.574300	13.900000	2.900000
max	-17.705700	28.697800	46.900000	5.100000



9 0.1 Filter

Also some rows seem to be missing depth measurements, (see differences in the count for columns above) - take only rows with valid depths

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mean	-17.844062	28.568893	14.089345	2.432423
std	0.027345	0.021899	8.624787	0.705282
\min	-17.995800	28.310200	0.000000	0.200000
25%	-17.854100	28.558000	10.100000	1.900000
50%	-17.838700	28.564000	11.300000	2.600000
75%	-17.829700	28.574300	13.900000	2.900000
max	-17.705700	28.697800	46.900000	5.100000



3 1 Spatial Plot

Scatter plot the spatial locations of events

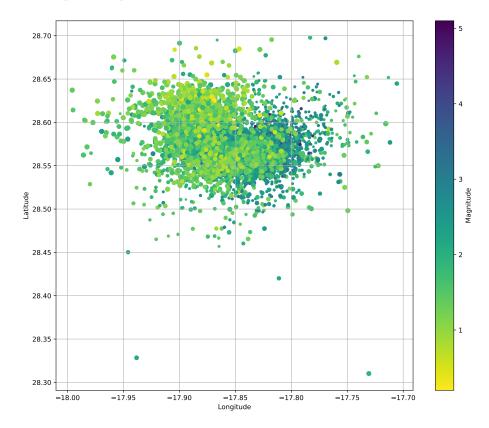


Figure 1: Locations of earthquakes on La Palma since 2017.

1.1 Timeline Plot

- Scatter plot the event time series and look for any quantization issues. Have
- 17 times & dates been loaded correctly?
- $ax = df.plot.scatter(x='DateTime', y='Depth(km)', figsize=(20,8)) \ ax.set_ylim(50,0);$