

The background of the slide is a photograph of a coastal landscape. On the left, a tall, brick chimney stands next to a stone building with arched openings. The building appears to be a ruin or an old structure. The landscape is hilly and covered in low vegetation. In the distance, the sea is visible, with waves breaking on a sandy beach. The sky is overcast.

Movers and Shakers

Virtual Raspberry Shake Event

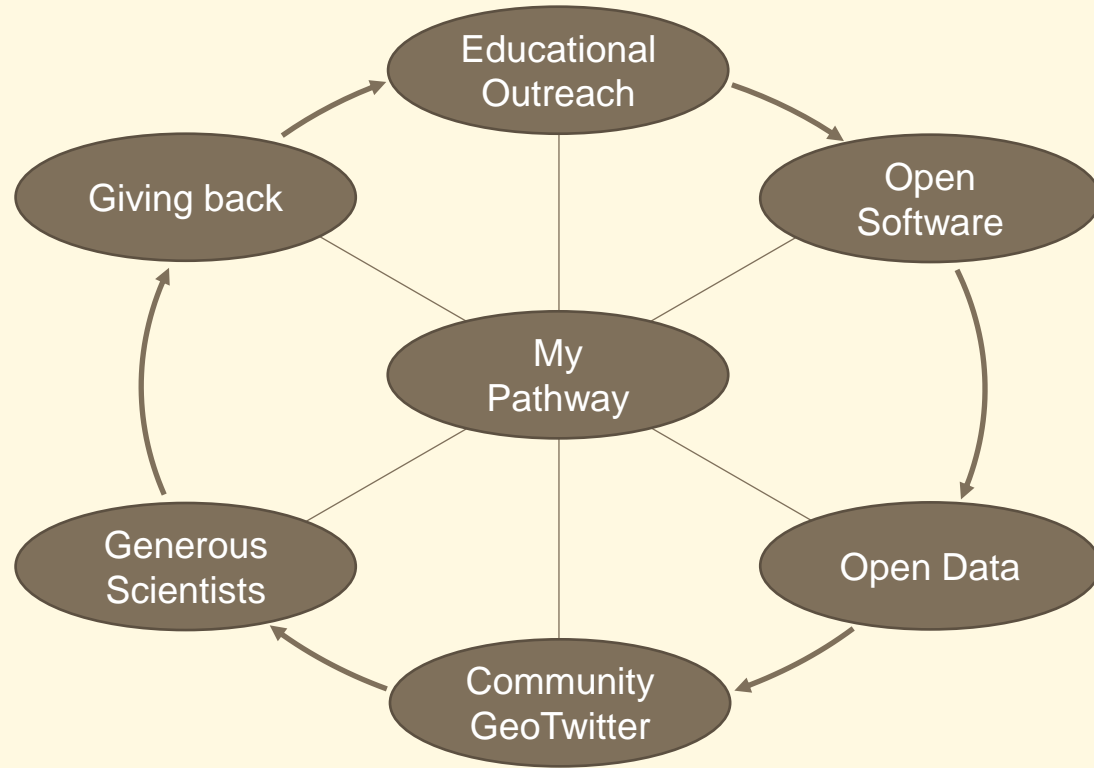
April 2021

**Bridging the gap between hobbyist
and professional communities
monitoring the Earth**

**Mark Vanstone
School Teacher and Hobbyist**



My pathway into Citizen Science



Raspberry Shake Hub



Obspy: a Python Toolbox for seismology.

<https://docs.obspy.org/>

How to download Raspberry Shake and other seismometer data from web services:

<https://stationview.raspberryshake.org/#/>

Web sites for finding earthquake events:

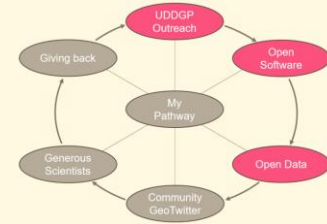
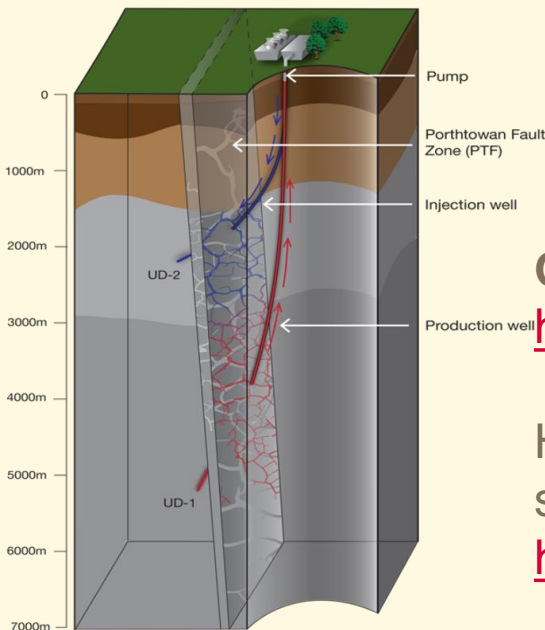
<https://earthquake.usgs.gov/earthquakes/map/>

<https://www.emsc-csem.org/>

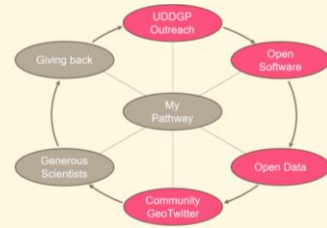
<http://www.quakes.bgs.ac.uk/>

The keys to everything I have done since

Pictures from Geothermal Engineering Ltd and Camborne Science Academy

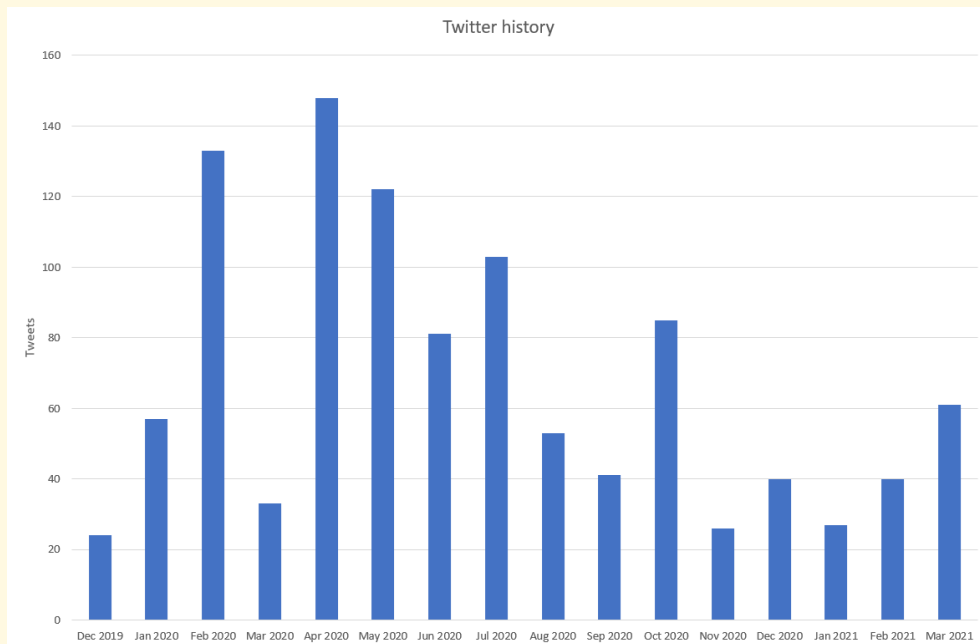
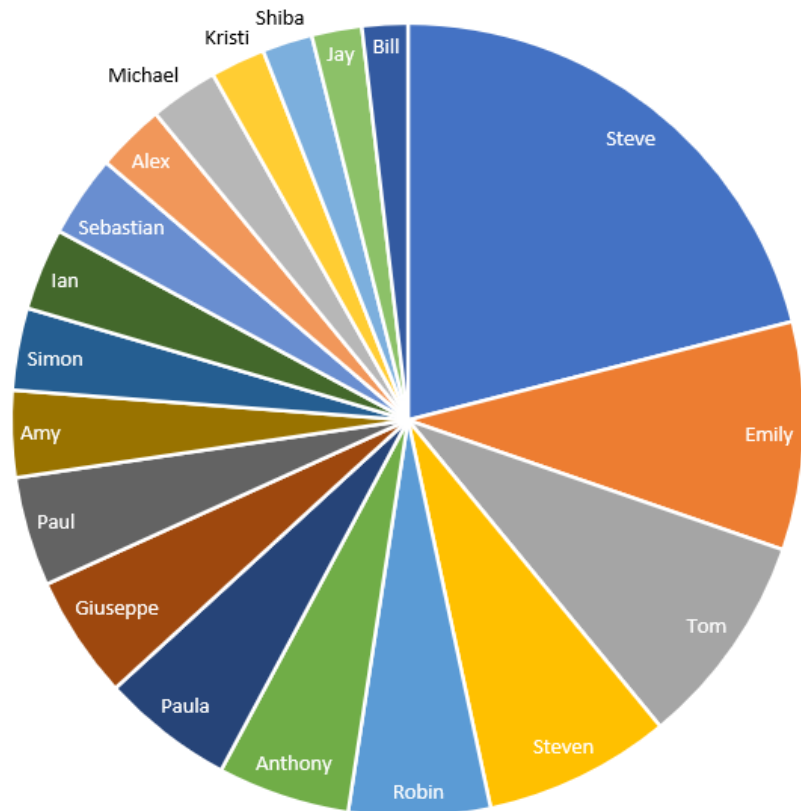


Twitter



<https://github.com/wmvanstone>

@wmvanstone





Thomas Lecocq
@seismotom

Hey friends! Am usually not the kind to "surf" on hype, but this time, I think it's for good, what do you think to co-write this? This week :-)

@wmvanstone @GeoGinger @celestelabedz
@SeisCROv @seismo_koel @JDiazCusi @seismorost
@raspishake @SeisCROv @seismo_steve
@Koen_VanNoten

Social Seismology - The effect of "lockdown" measures on
global seismic noise.

Lecocq, T.*¹ and anyone who would like to join²

¹Seismology-Gravimetry, Royal Observatory of Belgium, 1180 Brussels, Belgium.

²Seismologists of the World

April 1, 2020

Abstract

6:35 AM · Apr 1, 2020 · TweetDeck

34 Retweets 10 Quote Tweets 145 Likes

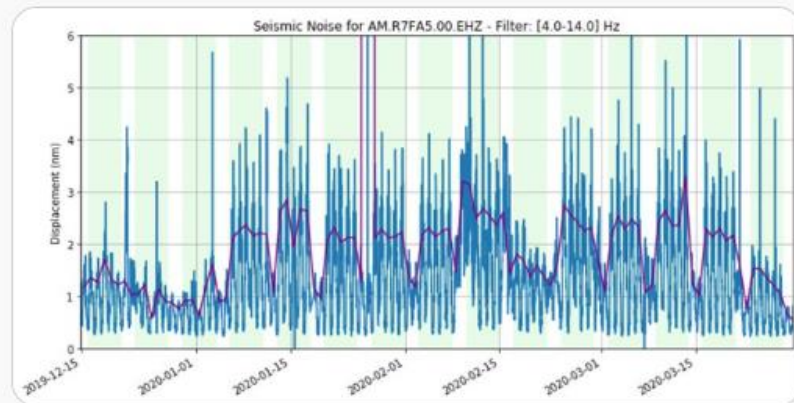


Lockdown



Mark Vanstone @wmvanstone · Mar 29, 2020

Noise on the Truro School seismometer since before Christmas 2019. Noise levels have not quite dropped to the levels of the complete shutdown at Christmas yet, but we are at about the same level as the week before Christmas. Interesting to see the full term laid out on one graph.



1



2



Thomas Lecocq @seismotom · Mar 29, 2020

Replying to @wmvanstone and @raspishake
Please feel free to PR your notebook or adapt mine!



1



Covid-19 Lockdown

Christmas
holiday

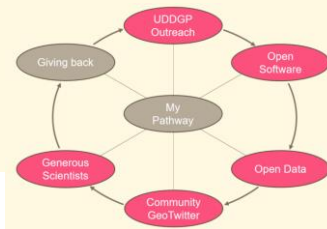
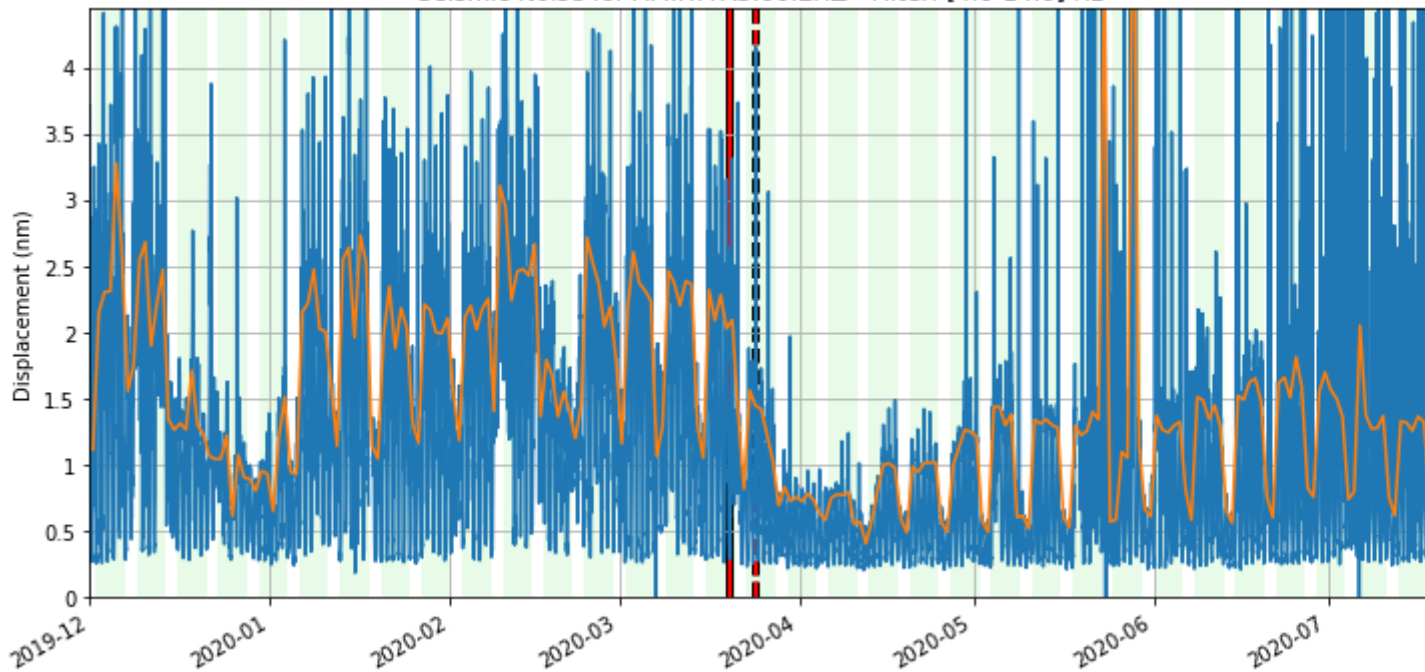
Spring Term

Easter
holiday

Summer Term

Summer
holiday

Seismic Noise for AM.R7FA5.00.EHZ - Filter: [4.0-14.0] Hz



Thomas Lecocq
ThomasLecocq

Unfollow

95 followers · 20 following · 48

Brussels, Belgium

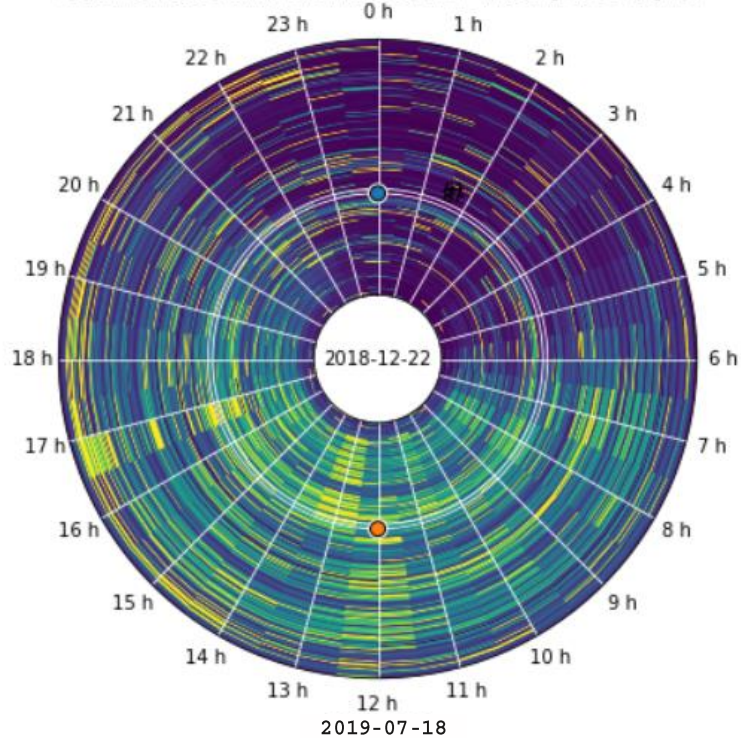
thleococq@gmail.com

<http://www.geophysique.be>

The code: <https://github.com/ThomasLecocq/SeismoRMS>

2018-2019

Seismic Noise for AM.R7FA5.00.EHZ - Filter: [4.0-14.0] Hz

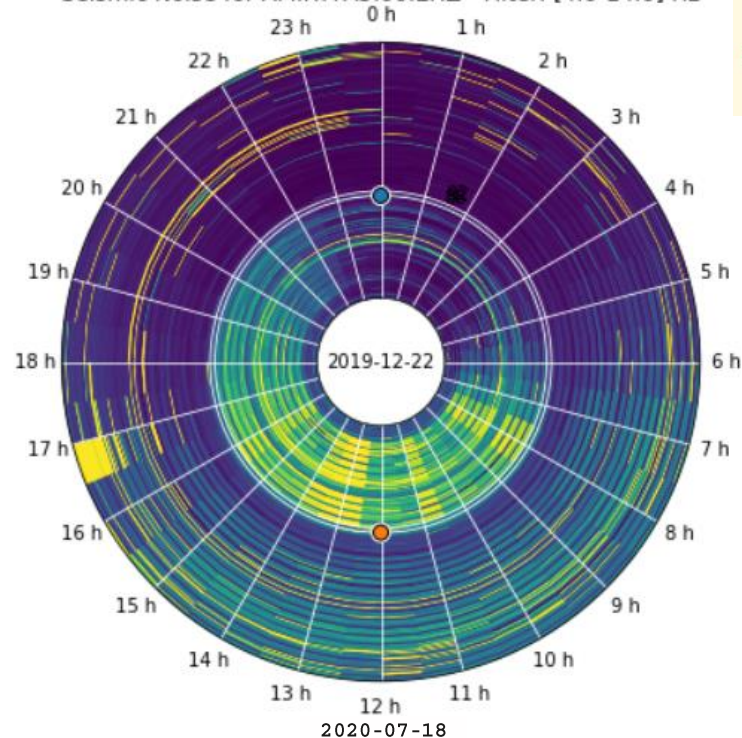


● Restaurants/Bars/Schools closed ● Non-essential shops closed

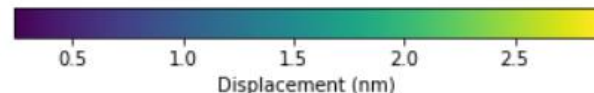


2019-2020

Seismic Noise for AM.R7FA5.00.EHZ - Filter: [4.0-14.0] Hz

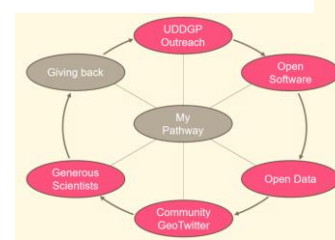
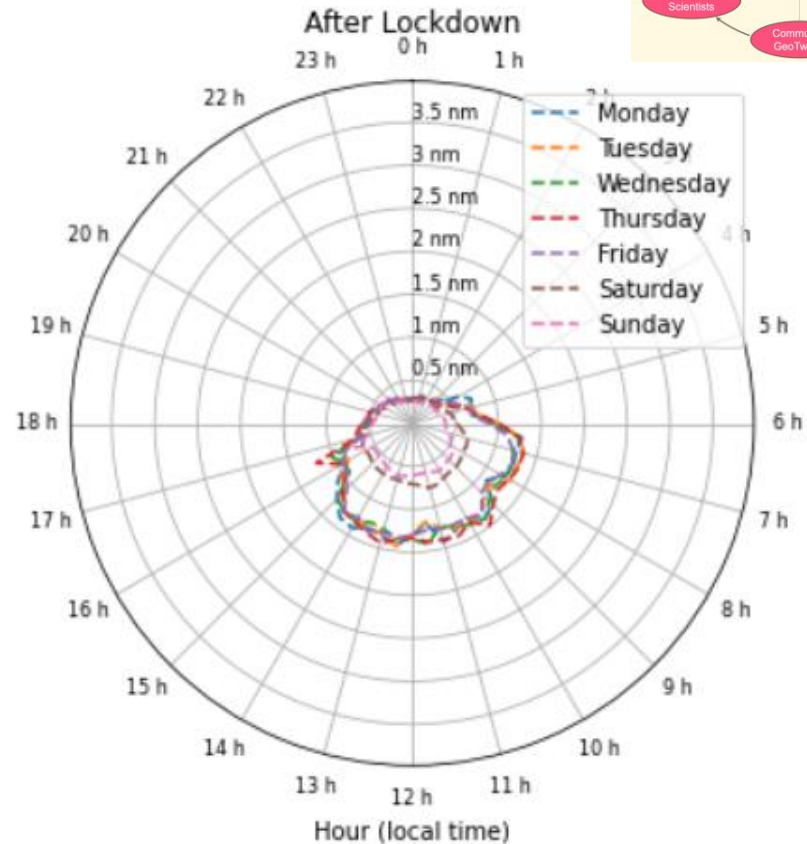
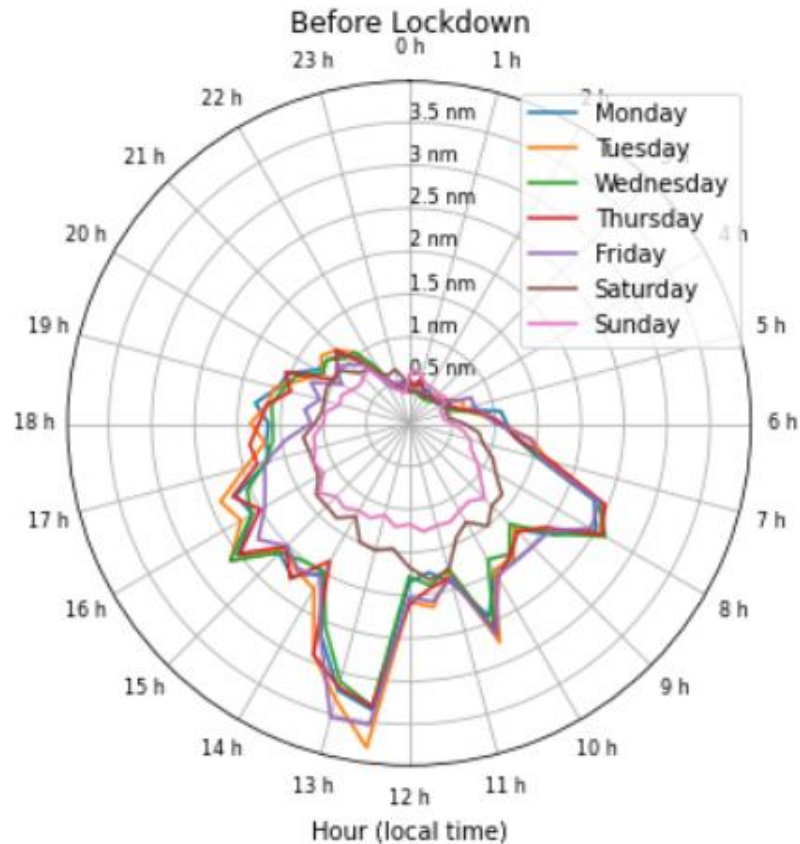


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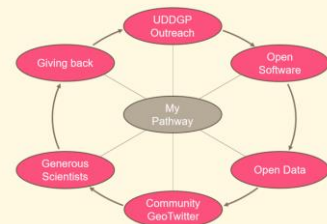
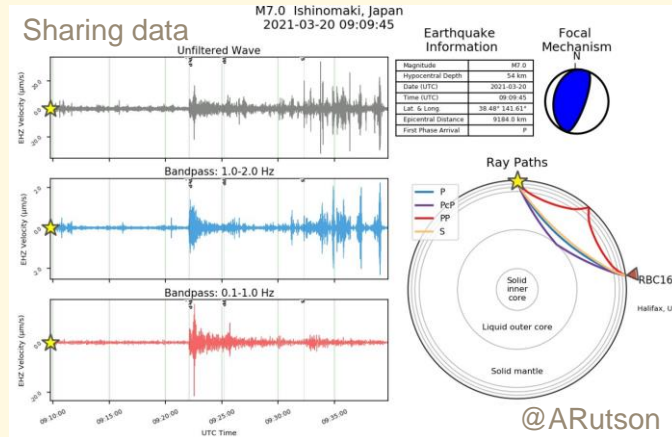
2019-2020 Data for Truro School Raspberry Shake R7FA5

Day/Hour Median Noise levels Truro School (Cornwall, UK) Station AM.R7FA5.00.EHZ - [4.0-14.0] Hz

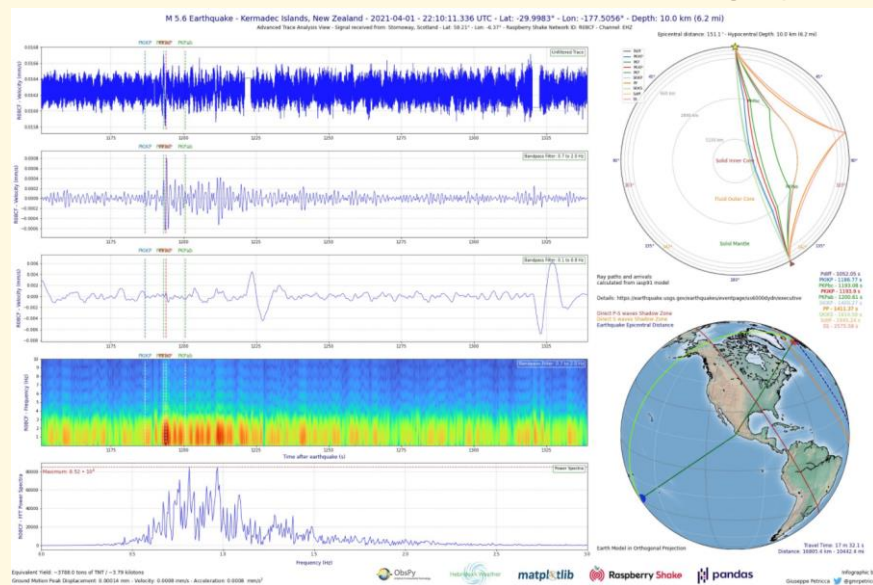


What Next?

What do Shakers have to offer?

Partnership: <http://seismoschoolnp.org/>

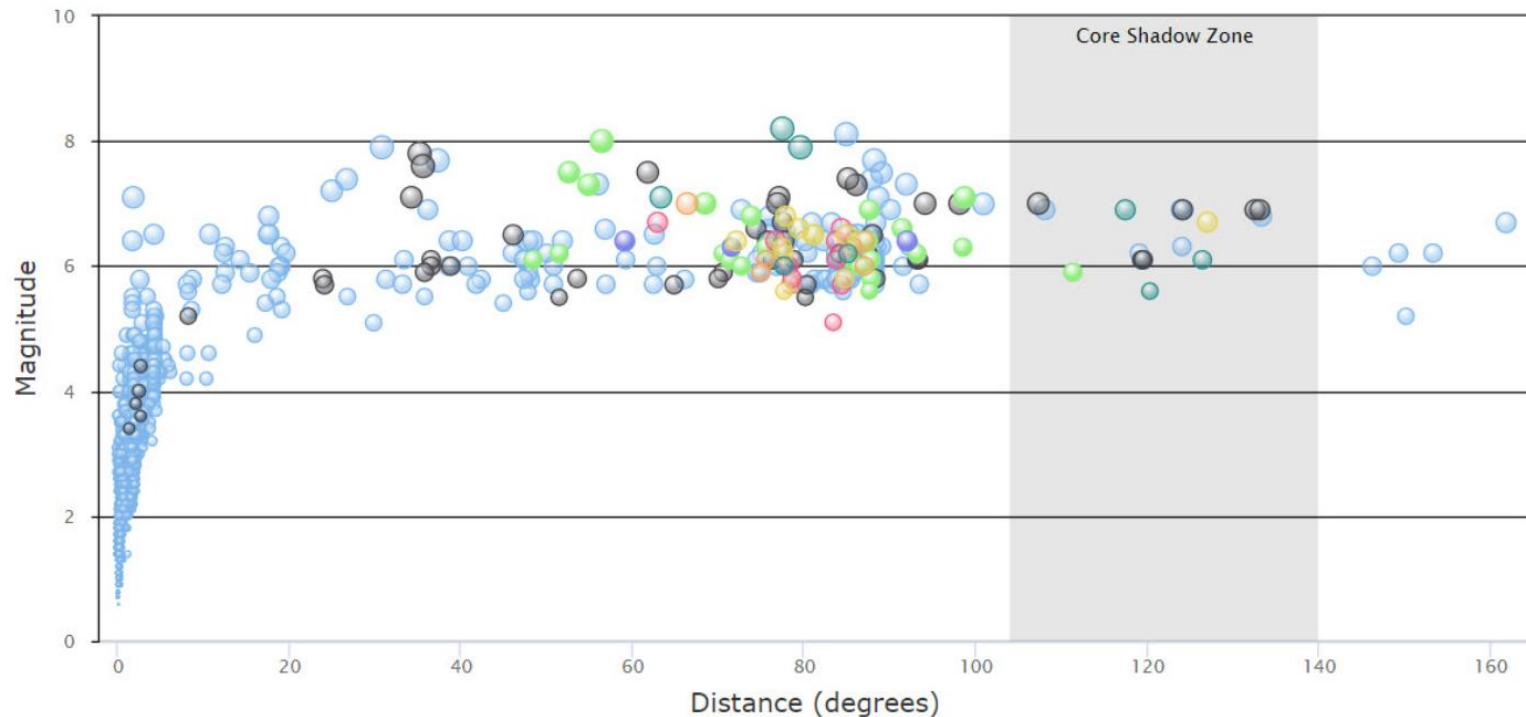
Sharing expertise



@gmrpetricca

Earthquakes Detected by RaspberryShake 4D RD29A in Chino Hills, Ca

From Oct. 2017 to Current - 1,655 Earthquakes



Depth and Count of Earthquakes

0-24km: 1,540	25-100: 53	100-199km: 24	200-299km: 7	300-399km: 3	400-499km: 9
500-599km: 11	600-699km: 8	700-799km: 0			

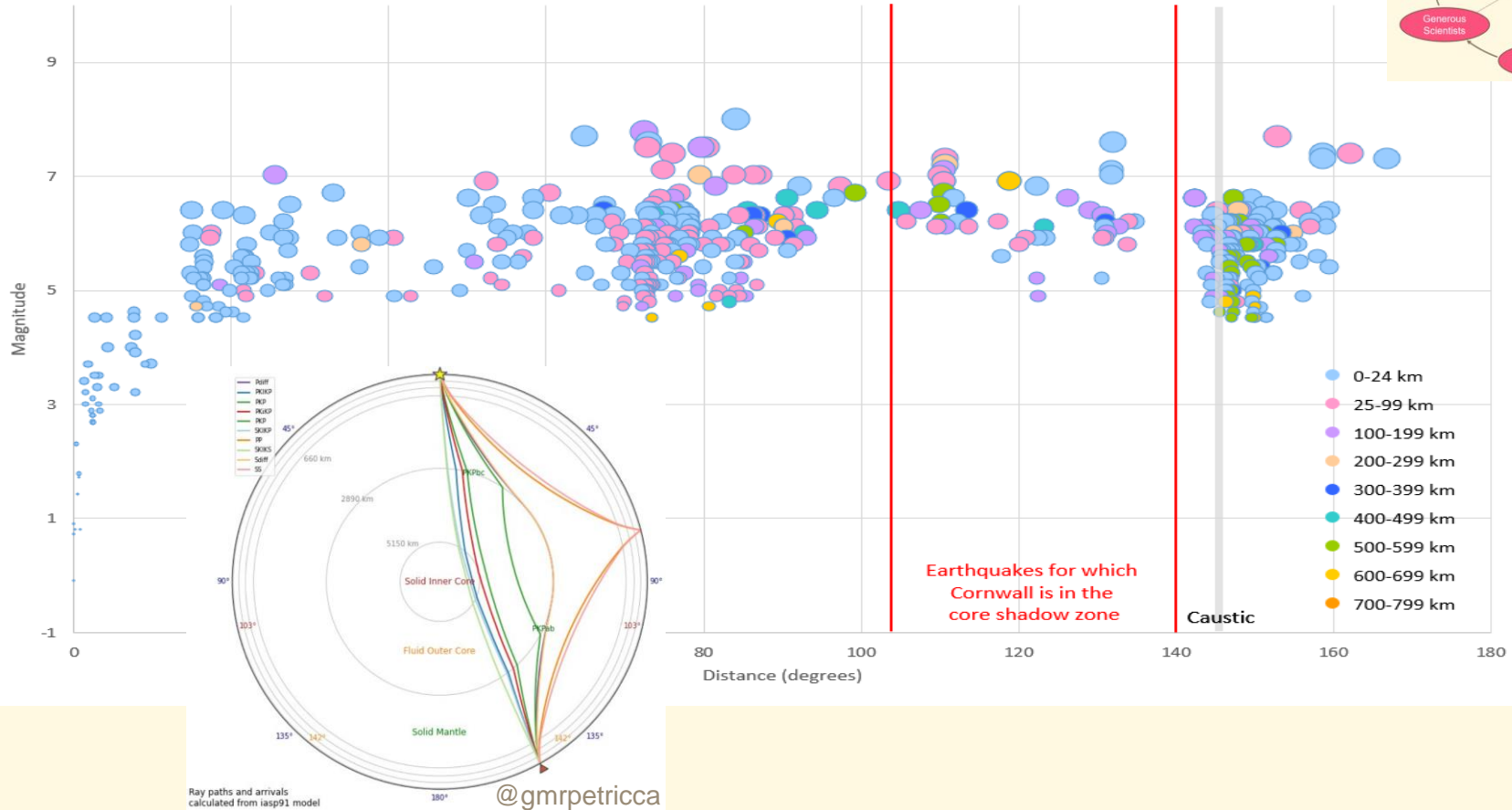
Highcharts.com



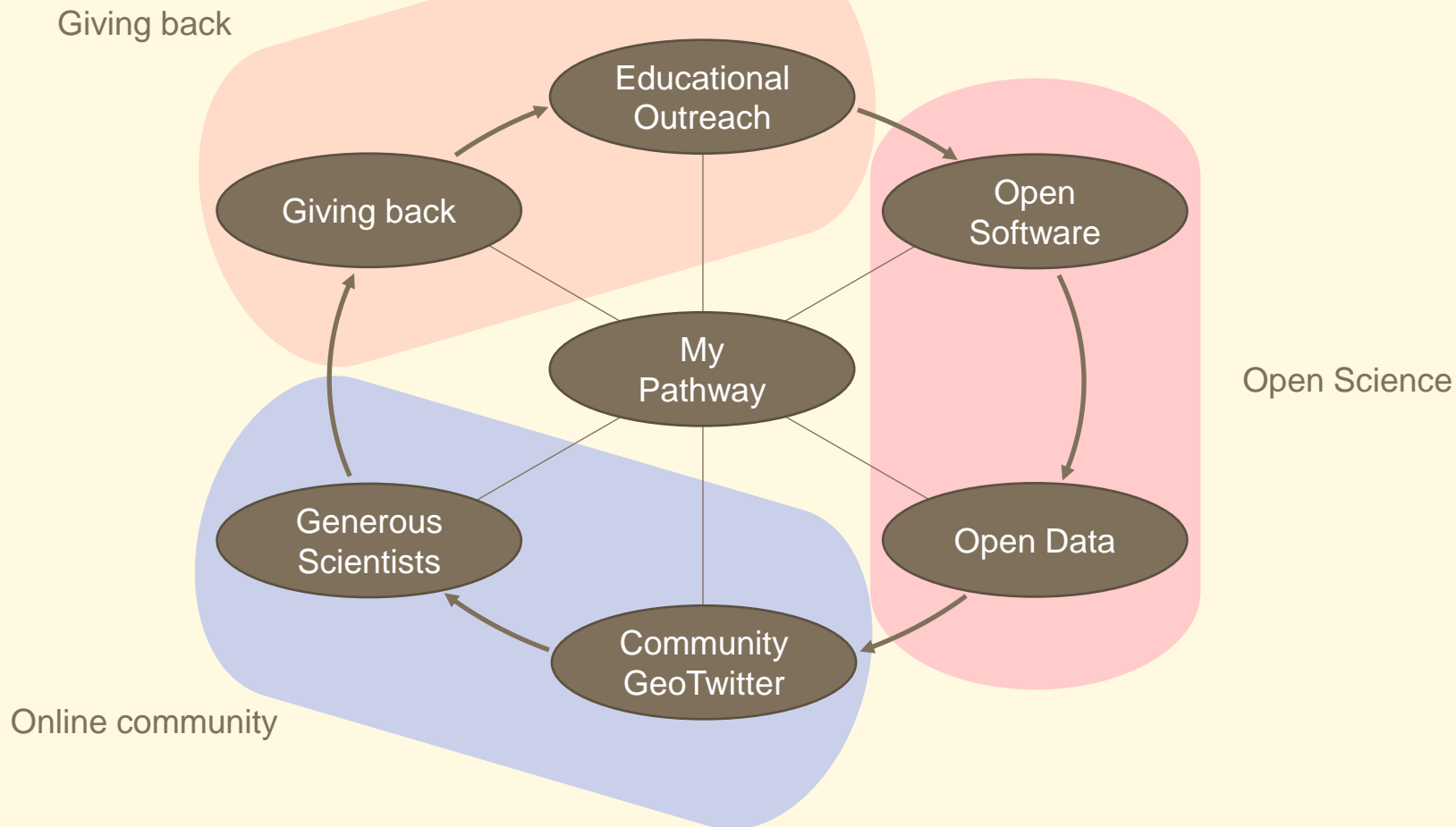
@SteveBCaron

```

graph TD
    MP((My Pathway)) --- UDDGP(UDDGP Outreach)
    MP --- OS(Open Software)
    MP --- OD(Open Data)
    MP --- CGT(Community Geo Twitter)
    MP --- GS(Generous Scientists)
    MP --- GB(Giving back)
    UDDGP --> OS
    OS --> OD
    OD --> CGT
    CGT --> GS
    GS --> GB
    GB --> UDDGP
  
```



Summary



Resources

- IRIS educational resources, lots of excellent content, so much that it is hard to pick favourites: <https://www.iris.edu/hq/programs/epo>
- USGS earthquakes, the go-to site for world earthquake information: <https://earthquake.usgs.gov/earthquakes/map/>
- The International Federation of Digital Seismograph Networks Web Services: <http://www.fdsn.org/webservices/>
- The European-Mediterranean Seismological Centre, European earthquake information: <https://www.emsc-csem.org/>
- The British Geological Survey, information about earthquakes close to the UK: https://earthquakes.bgs.ac.uk/earthquakes/recent_uk_events.html
- Professor Iain Stewart, BBC presenter e.g. 10 things you didn't know about earthquakes: <https://vimeo.com/212587047>
- Thomas's SeismoRMS code: <https://github.com/ThomasLecocq/SeismoRMS>
- The obspy tutorial: <https://docs.obspy.org/tutorial/>
- Raspberry Shake web site: <https://raspberrysshake.org/>. If you have the login details for your Raspberry Shake, the app is very helpful.
- Thonny IDE, a simple programming environment designed to help students learn Python: <https://thonny.org/>
- Article about the Raspberry shakes in Cornwall: <https://raspberrysshake.org/detecting-earths-internal-features-using-raspberry-shakes/>
- My blog which includes instructions for coding in obspy: <https://carpebble.blogspot.com/>
- My Twitter feed: <https://twitter.com/wmvanstone>
- Code I have shared on GitHub: <https://github.com/wmvanstone>
- Some code on Anaconda: <https://anaconda.org/wmvanstone>

Movers and Shakers Virtual Raspberry Shake Event April 2021

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School Teacher and Hobbyist**

