

WD 1.4 Other environmental noises

Tomek Bulik

Other noises

- Mainly infrasound –
- *Also microbarometric measurements*
- *Weather conditions*
- *Correlations*

<https://wiki.et-gw.eu/SPB/OtherEvnNoise>

WD 1.4 Other Environmental noises activities

Concentrated on Sardinia

Multinational effort

Installed microphones in the mine

- Italian (EGO microphones) – long time
- Polish UW ('Astrocent' microphones) - from Nov 26, '22
- Hungarian campaign -Nov 21-26, '22

Installed microphones outside the mine

- Polish 'Astrocent' from Nov 26, '22

LNGS experiment with noise in large cavern - see talk by Bulik

No updates from the EMR side

Planned GSSI campaign with new microphones and covers.







Acoustic campaign in SOS Enattos 21-25 Nov 2022

Joint Polish-Italian-Hungarian studies

- SOE1, SOE2, SOE 3 have microphones for long term analysis
- SOE2 – Hungarian microphone – short campaign.
- Surface – SOE0 – long term campaign

Underground and surface microphones



Data storage and analysis

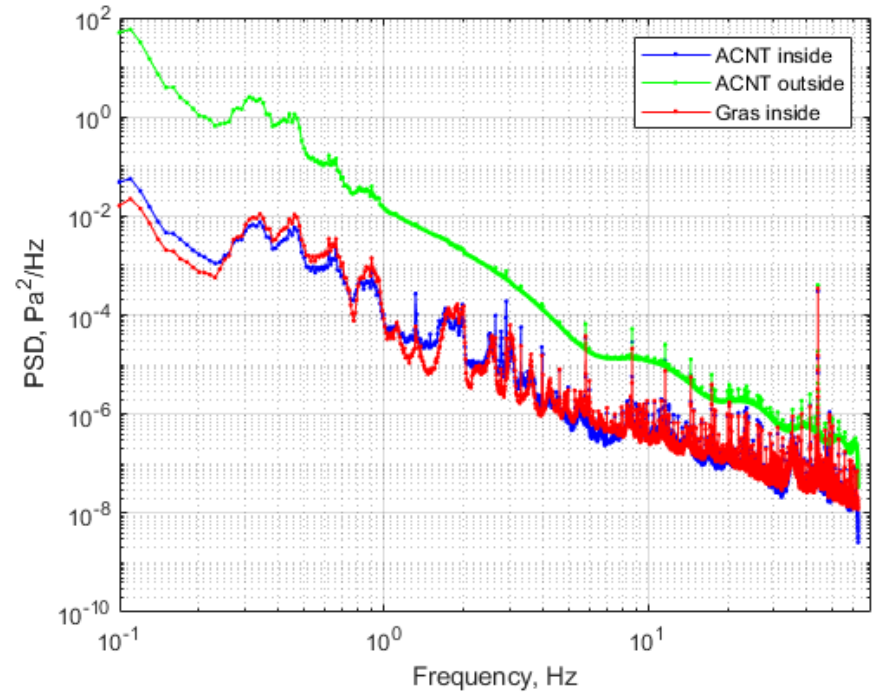
Wiki site:

<https://wiki.et-gw.eu/SPB/OtherEvnNoise>

Data stored in: etrepo.df.unipi.it

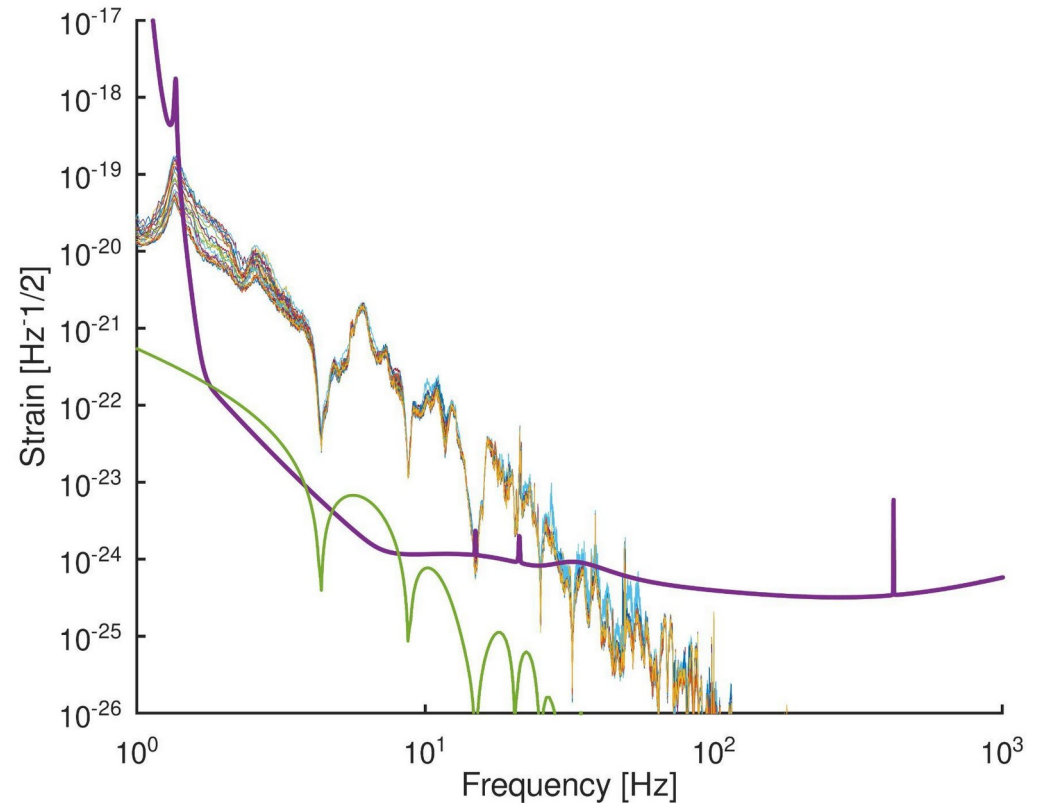
Some data on Virgo servers as well...

See data analysis in talks by Suchenek and Fenyvesi



Additional project – acoustic noise at LNGS

- Acoustic noise measured in LNGS – a large underground hall similar to future ET
- Estimate of the acoustic NN noise
- The noise is quite large - need to plan noise mitigation
- See my talk on Wednesday.
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WD 1.4 Plans

Further measurements in Sos Ennatos: microbarymetric measurements, weather monitoring.

Clearing the situation in EMR. What measurements can be done? Who will do them?

Clear the measurements to be done in Lusetia.

Increase the level of cooperation and communication– we must work as large team, share and document results.

Data analysis:

- estimates of the noise are difficult as no infrastructure exists yet.
- search for correlations.