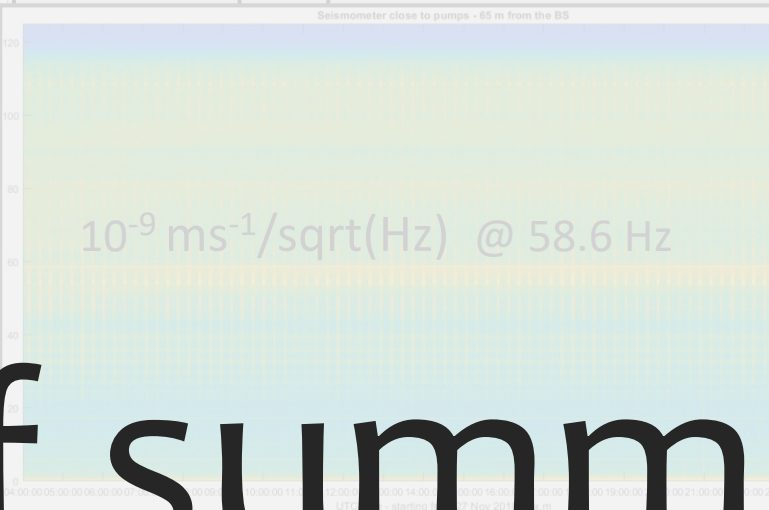
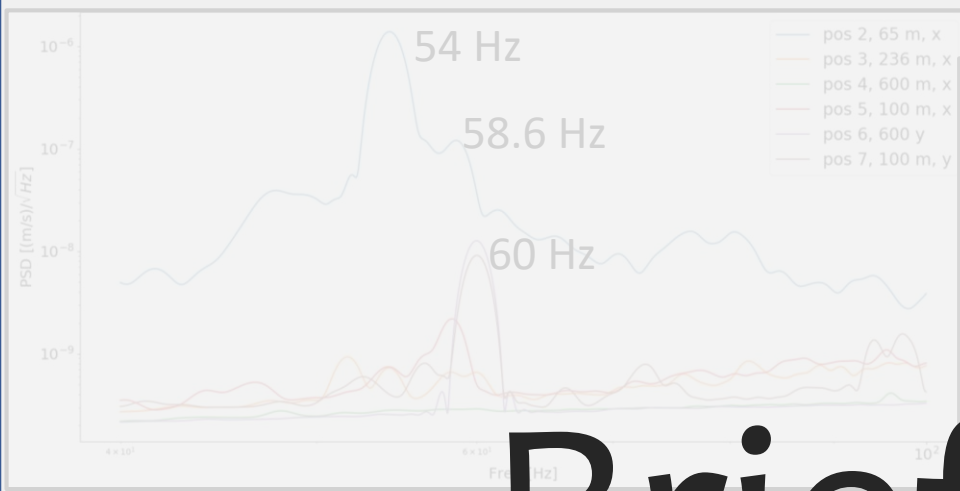


outside the room hosting the BS and the

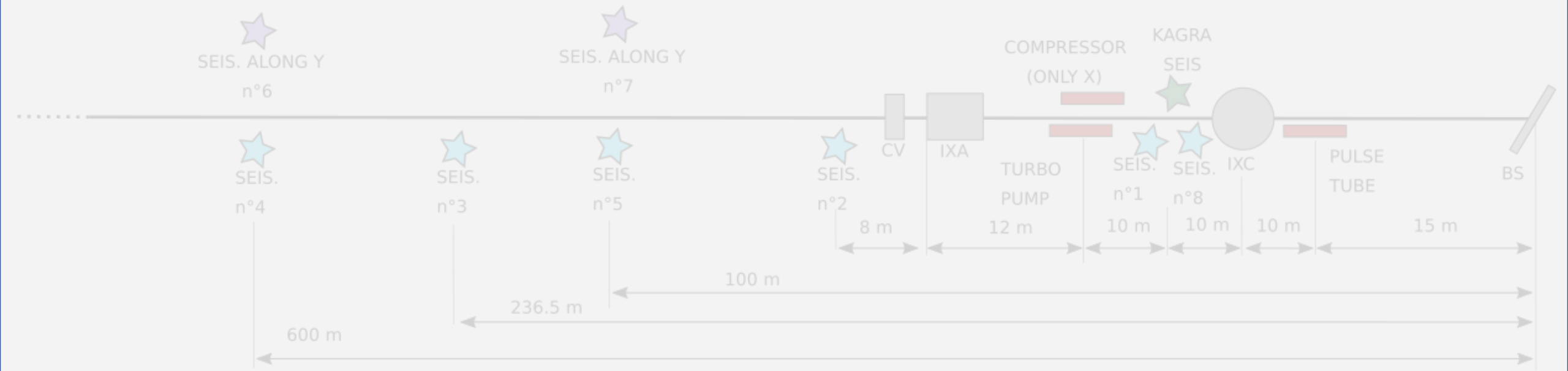
pumps



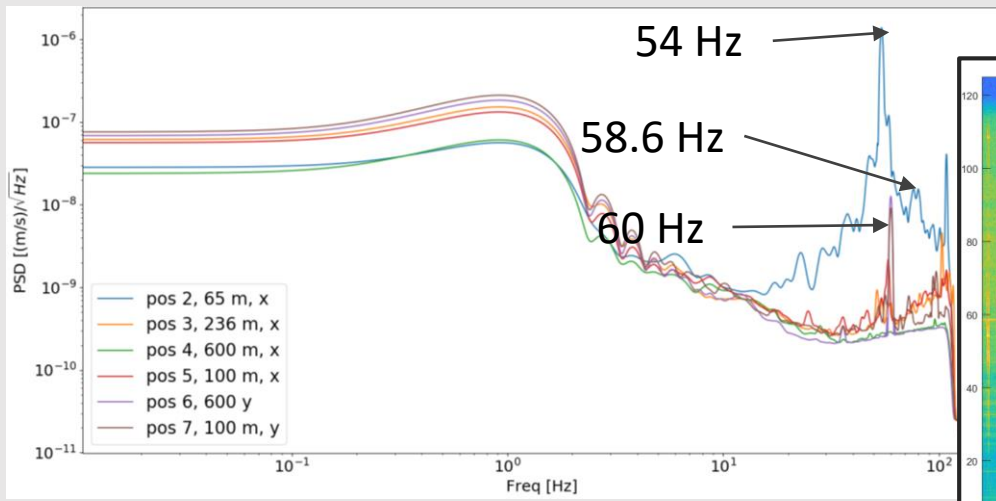
Brief summary

inside the room hosting the BS and the pumps

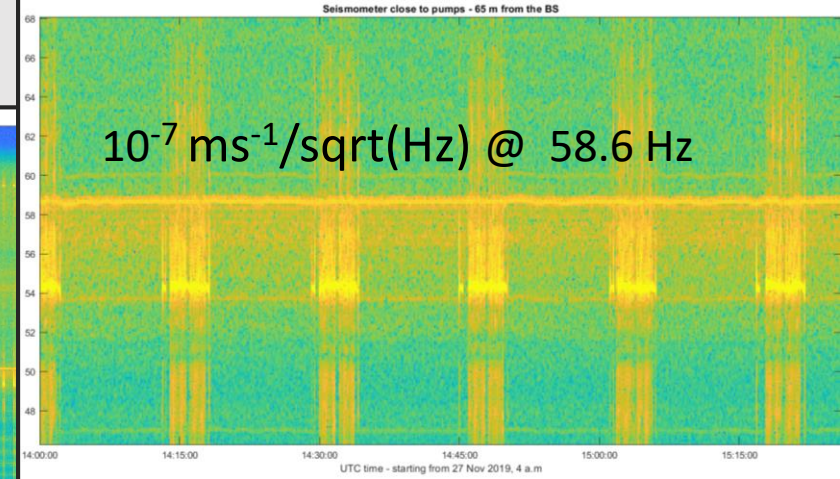
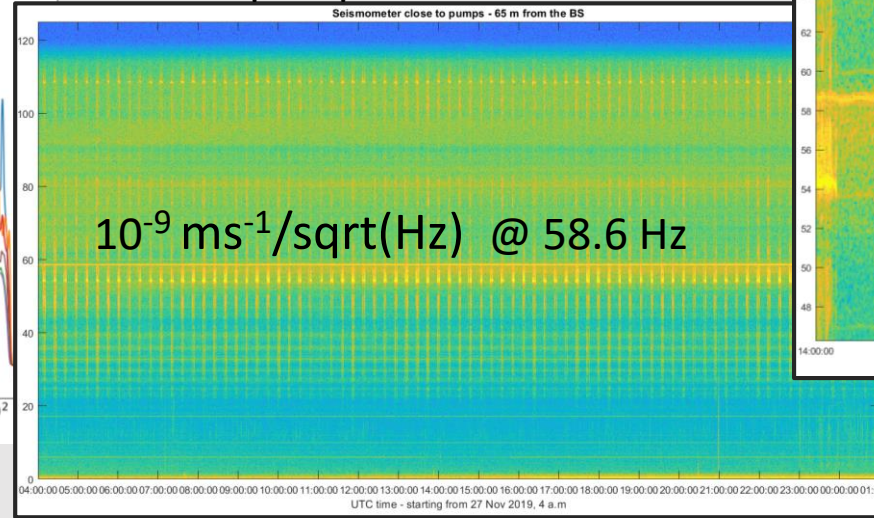
X ARM



outside the cave hosting the BS and the pumps

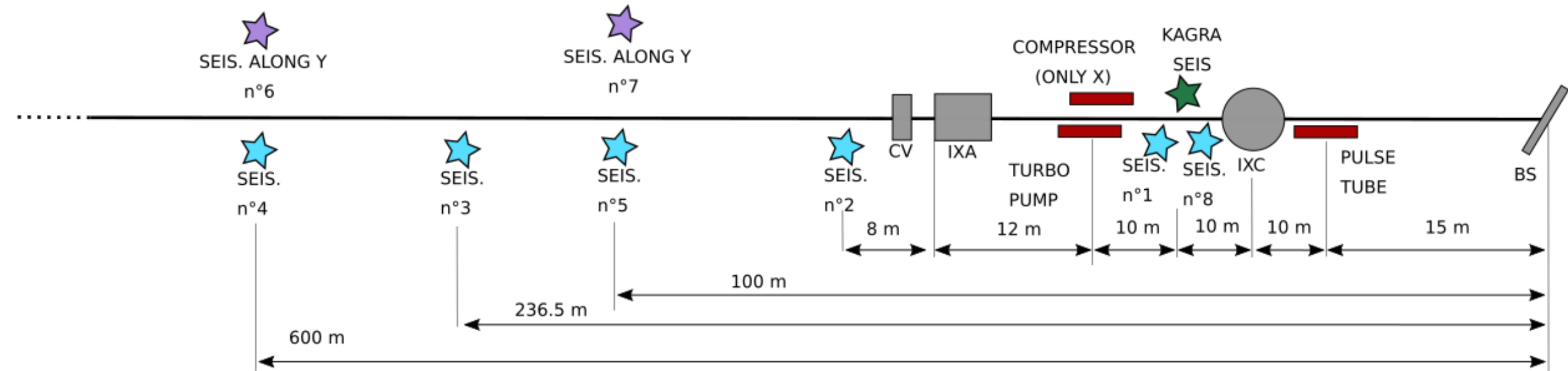


pumps

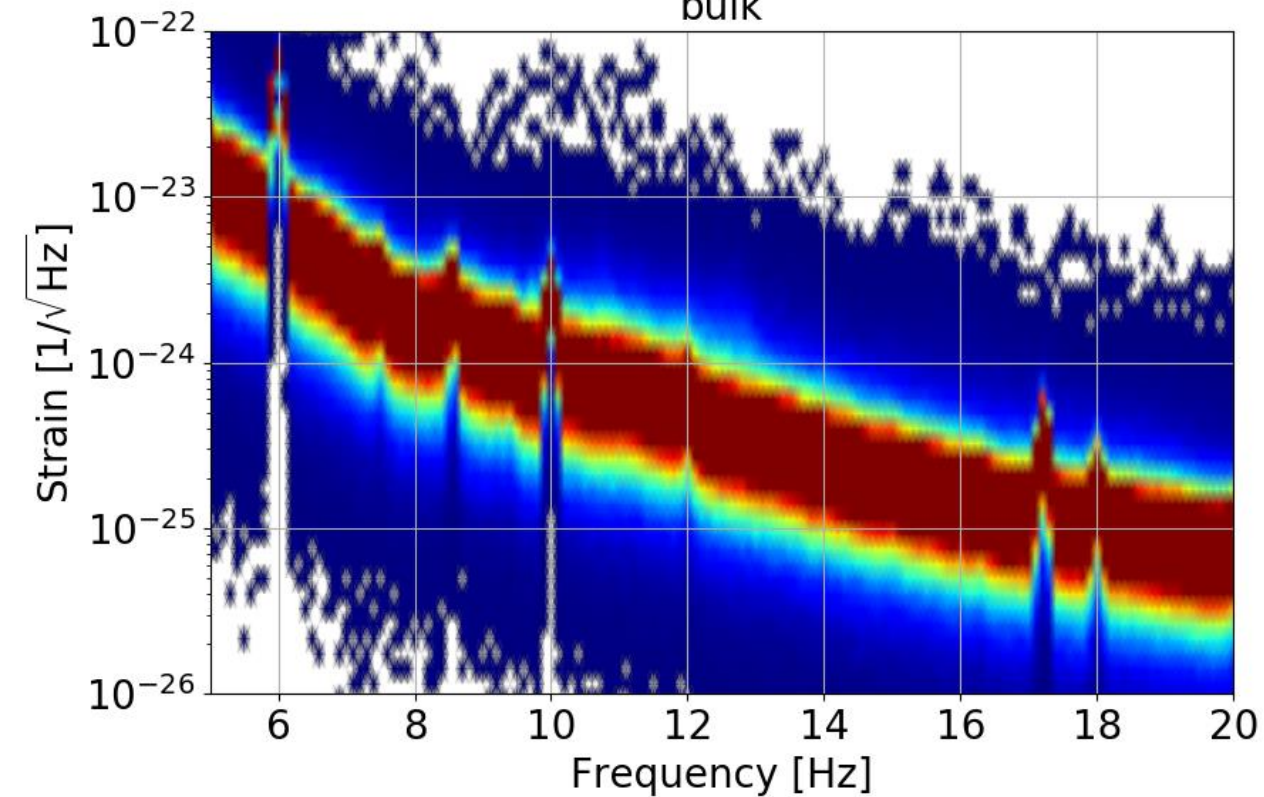


Inside the cave hosting the BS and the pumps

X ARM



bulk



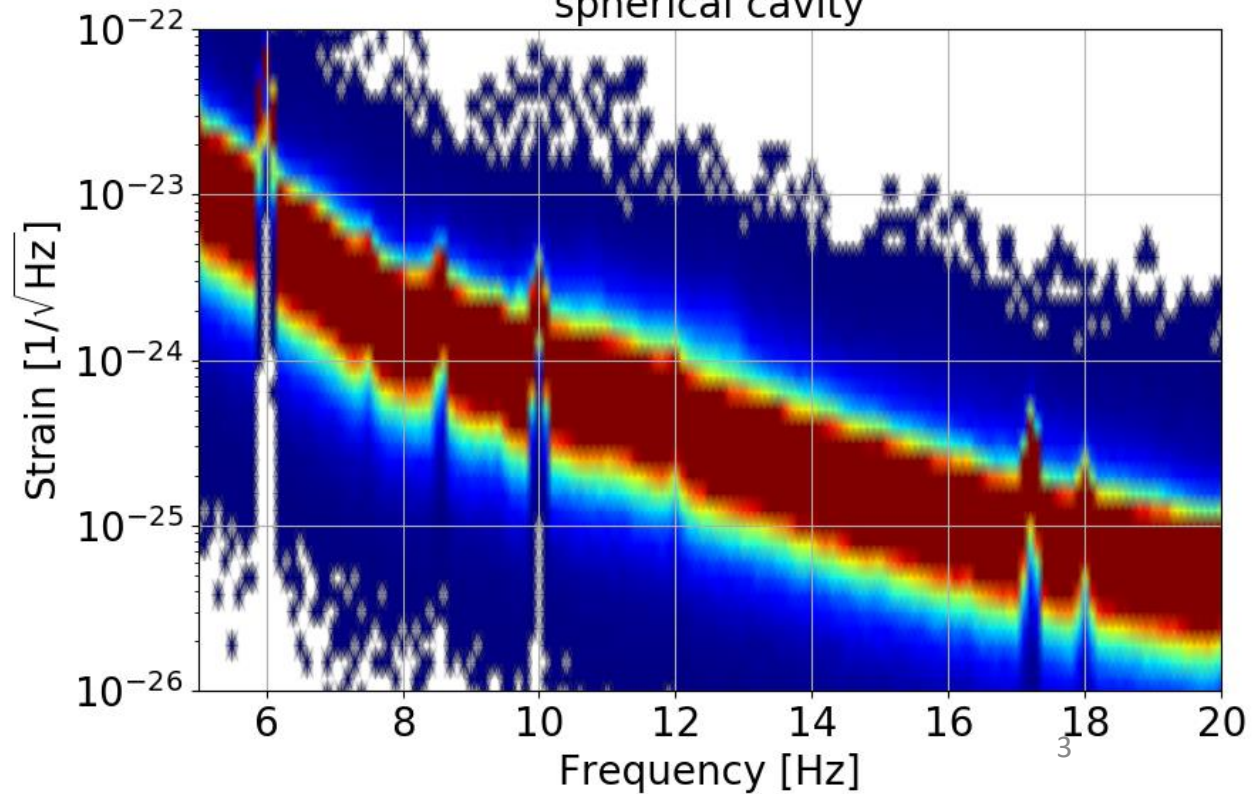
Estimation on the NN from body waves
(assuming only P) with Seism. N^o2 data

density = $3 \cdot 10^3$ Kg/m³

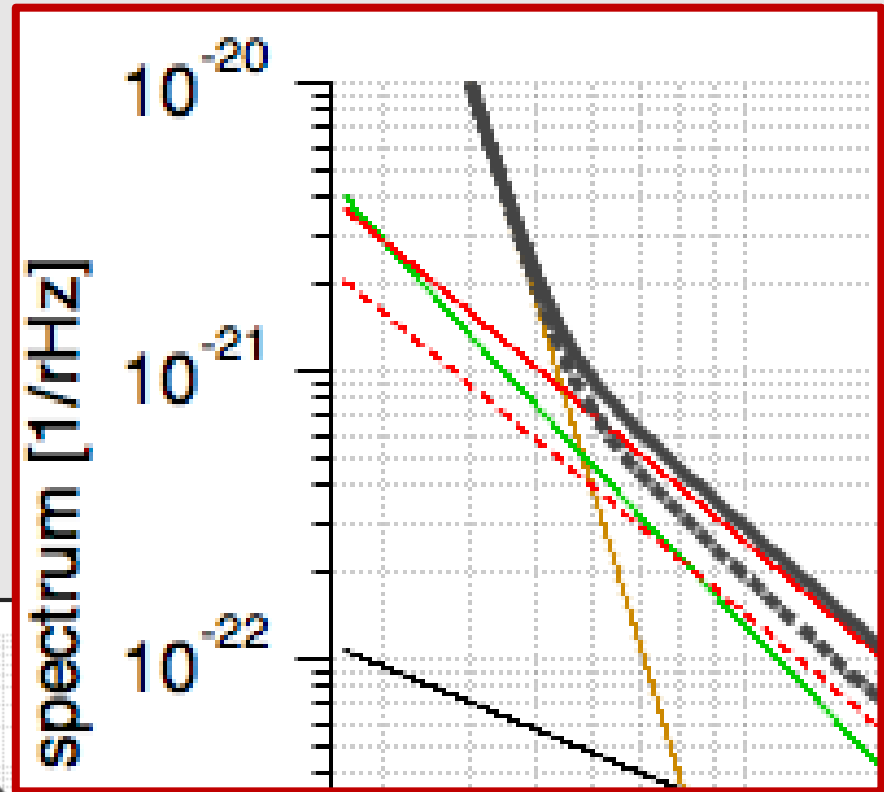
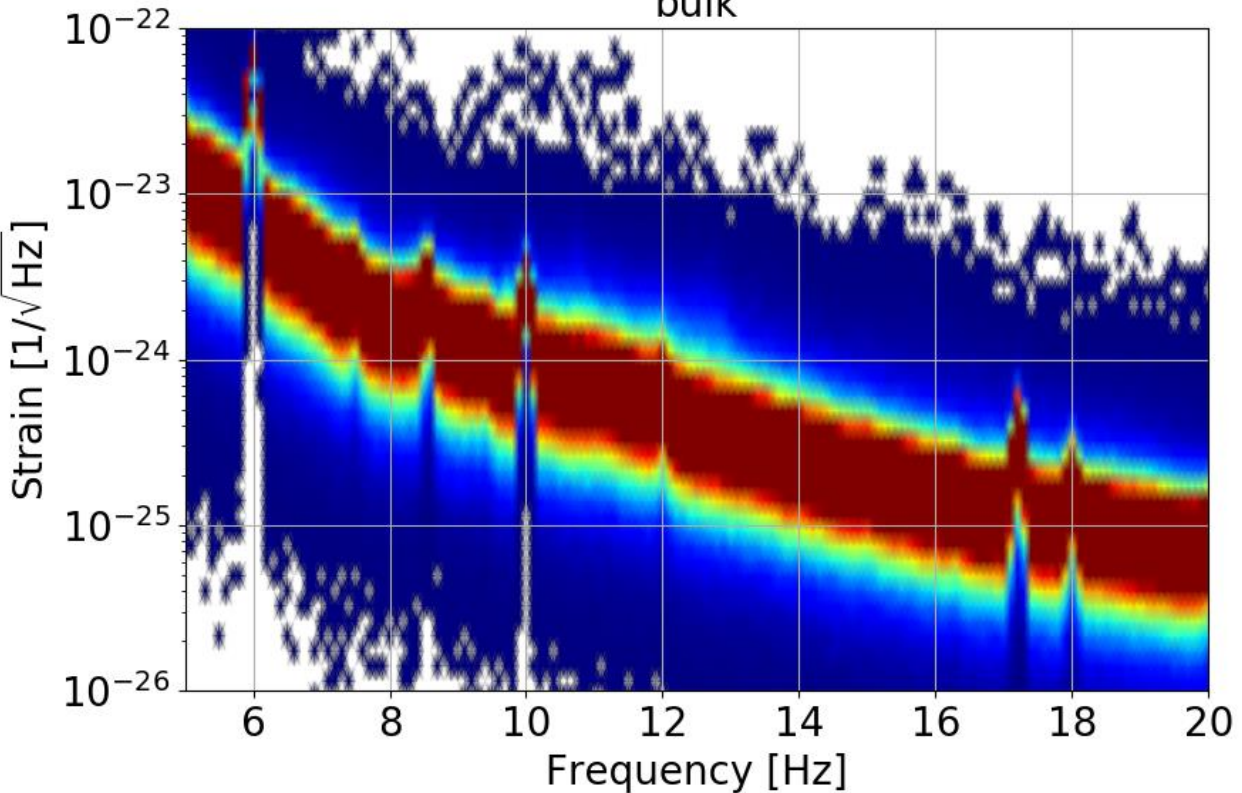
Vel = 2000 m/s

Radius cavity = 30 m

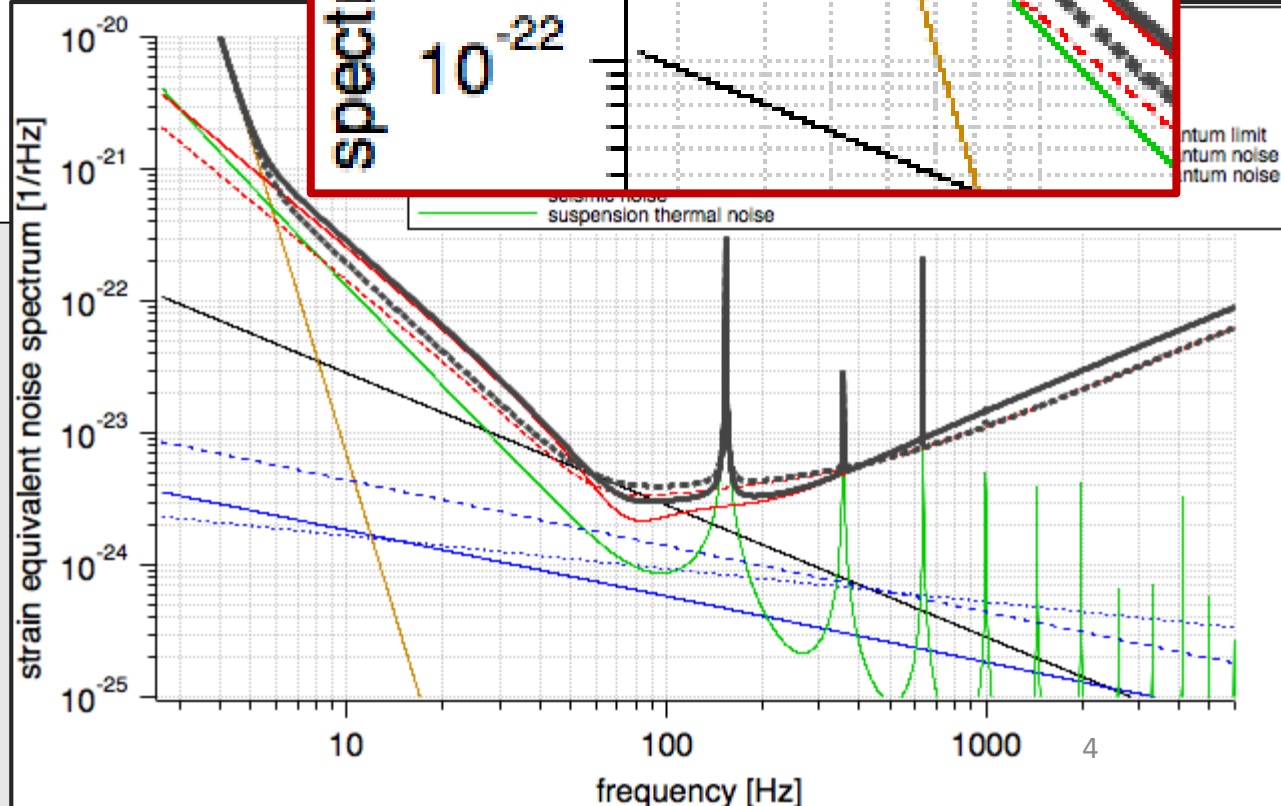
spherical cavity



bulk

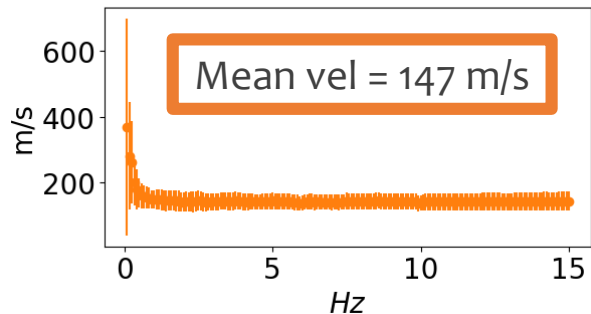


**DON'T
WORRY!!!**

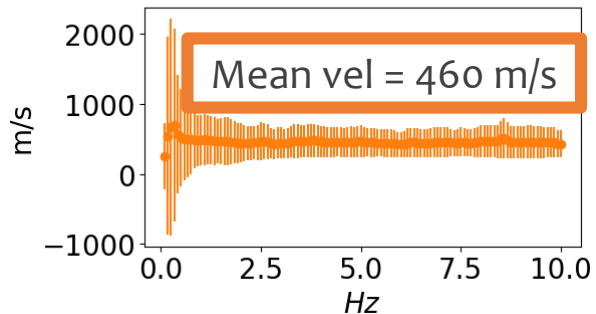


X Arm

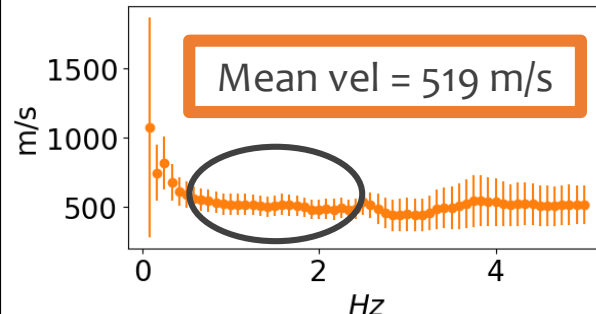
BS - seis n° 2-65 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.



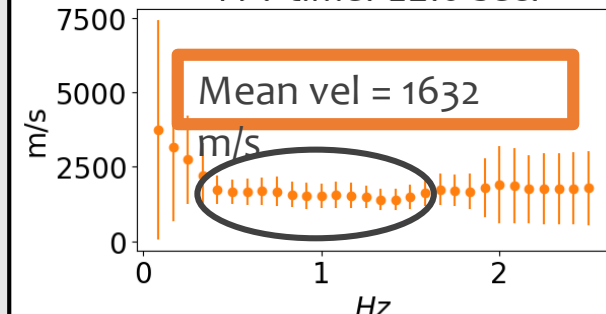
BS - seis n° 5-100 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.



BS - seis n° 3-236.5 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.

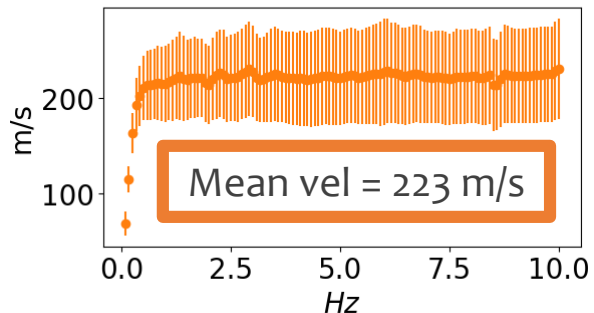


BS - seis n° 4-600 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.

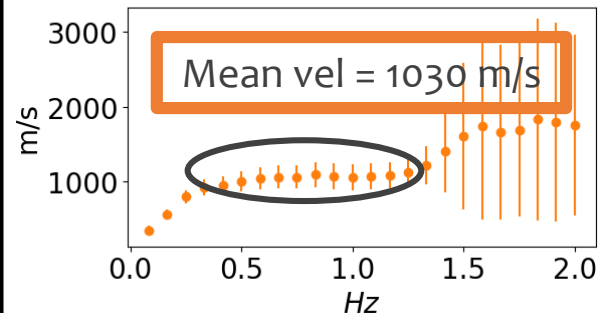


Y Arm

BS - seis n° 7-100 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.

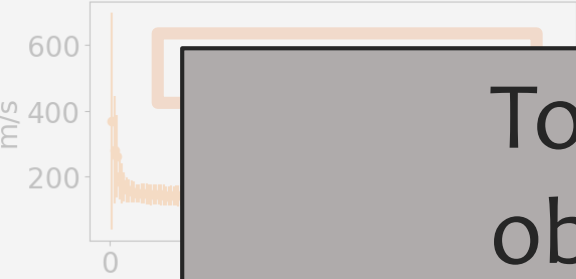


BS - seis n° 6-600 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.

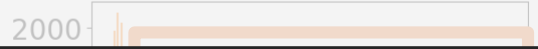


X Arm

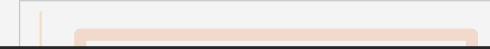
BS - seis n° 2-65 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.



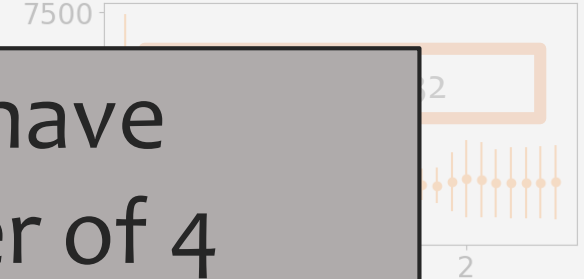
BS - seis n° 5-100 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.



BS - seis n° 3-236.5 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.



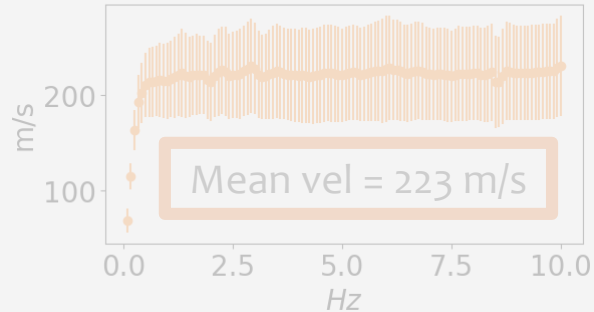
BS - seis n° 4-600 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.



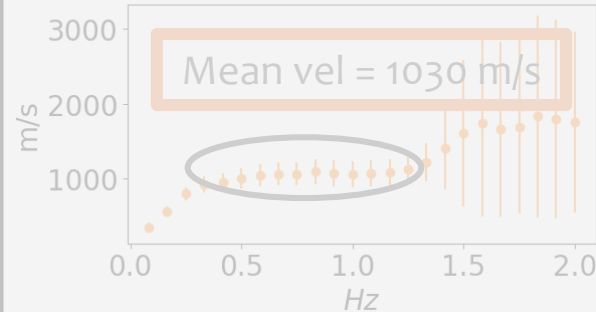
Too slow, too different! We should have obtained something like of the order of 4 Km/s or more for Body waves!!!

Y Arm

BS - seis n° 7-100 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.



BS - seis n° 6-600 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.

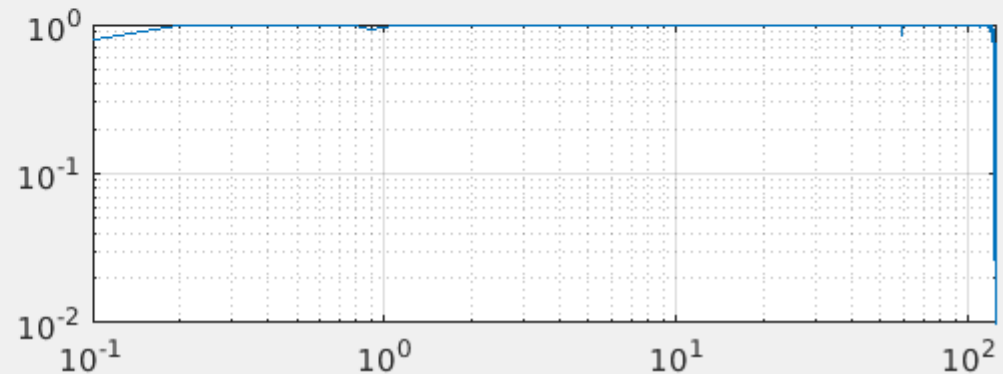
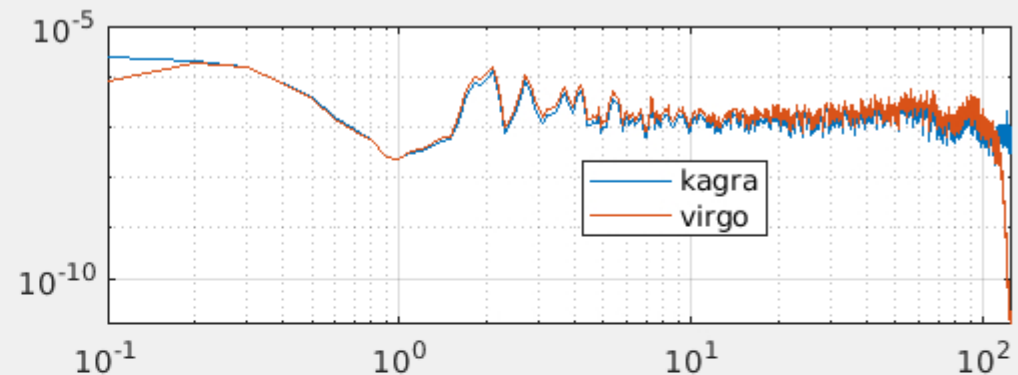
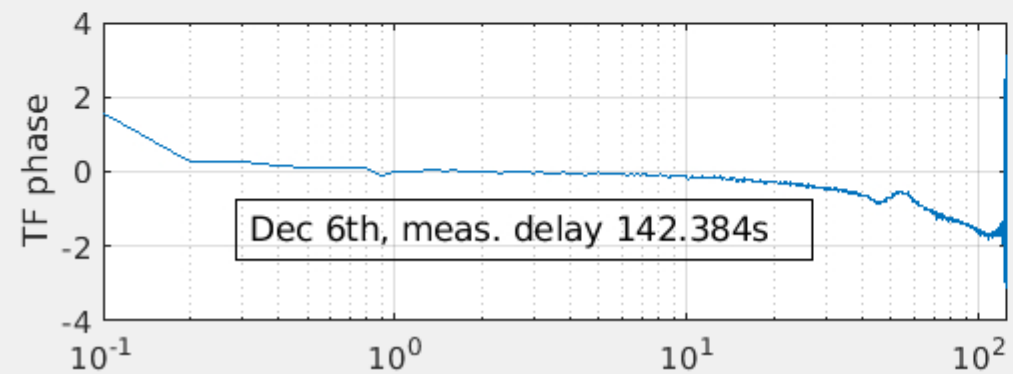
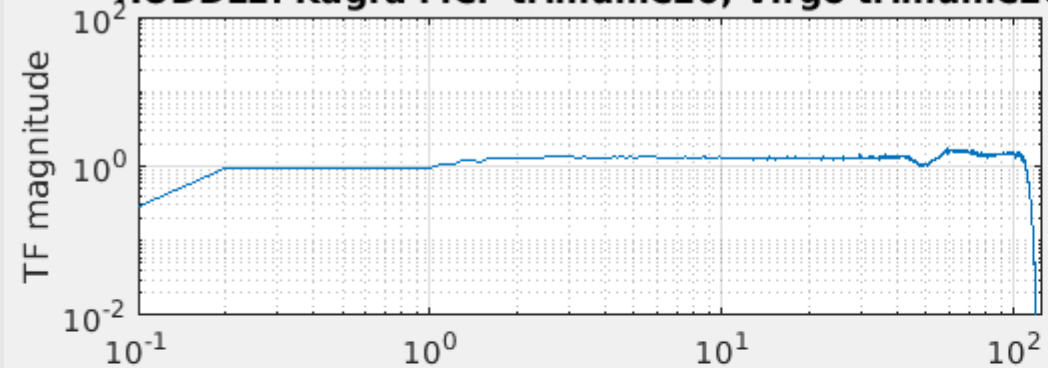


Conclusions:

- Time synchronization **not linear**: it's not possible to adjust the data to produce reasonable results.
- Despite this we can say that the NN from body waves field should not be a problem for KAGRA, but we still need to estimate the NN coming from **surface waves** on the mountain

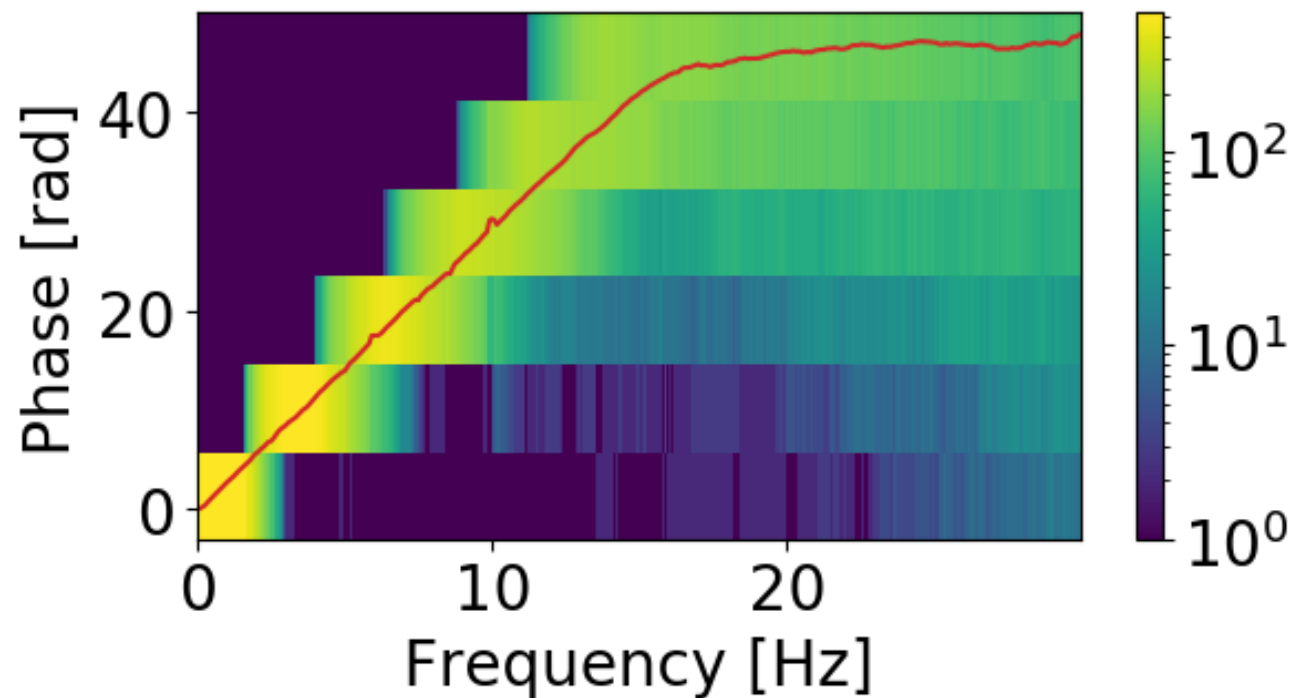
Thank you

HUDDLE: Kagra MCF trilliumC20, Virgo trilliumC20

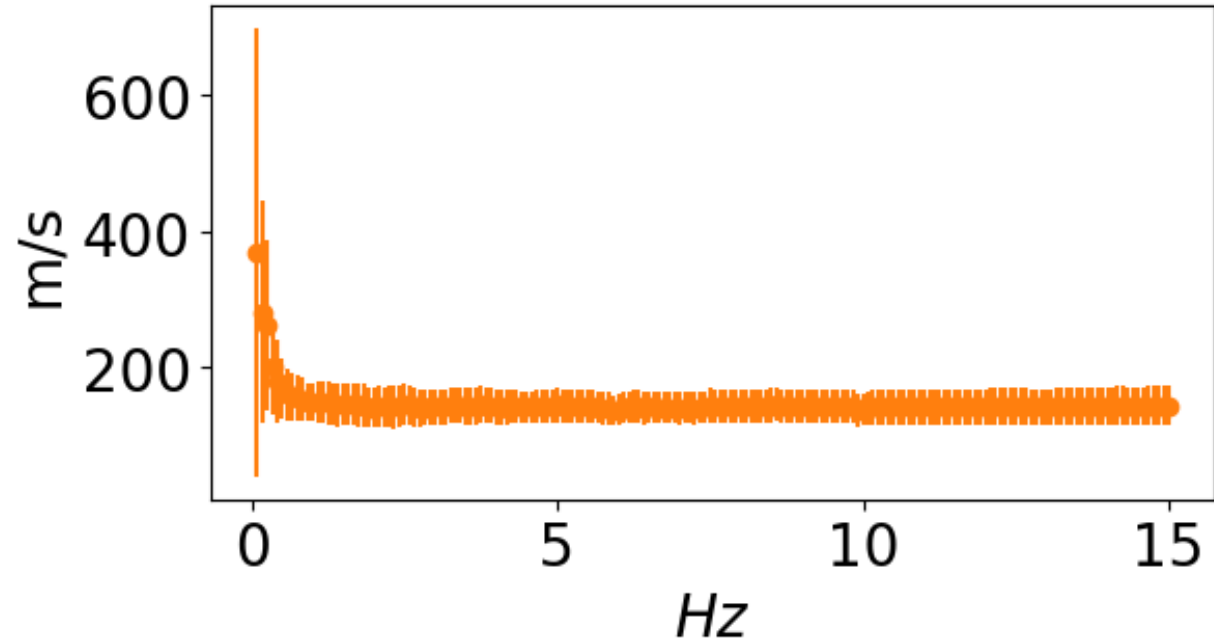


Mean vel = 147 m/s

BS - seis n° 2-65 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.

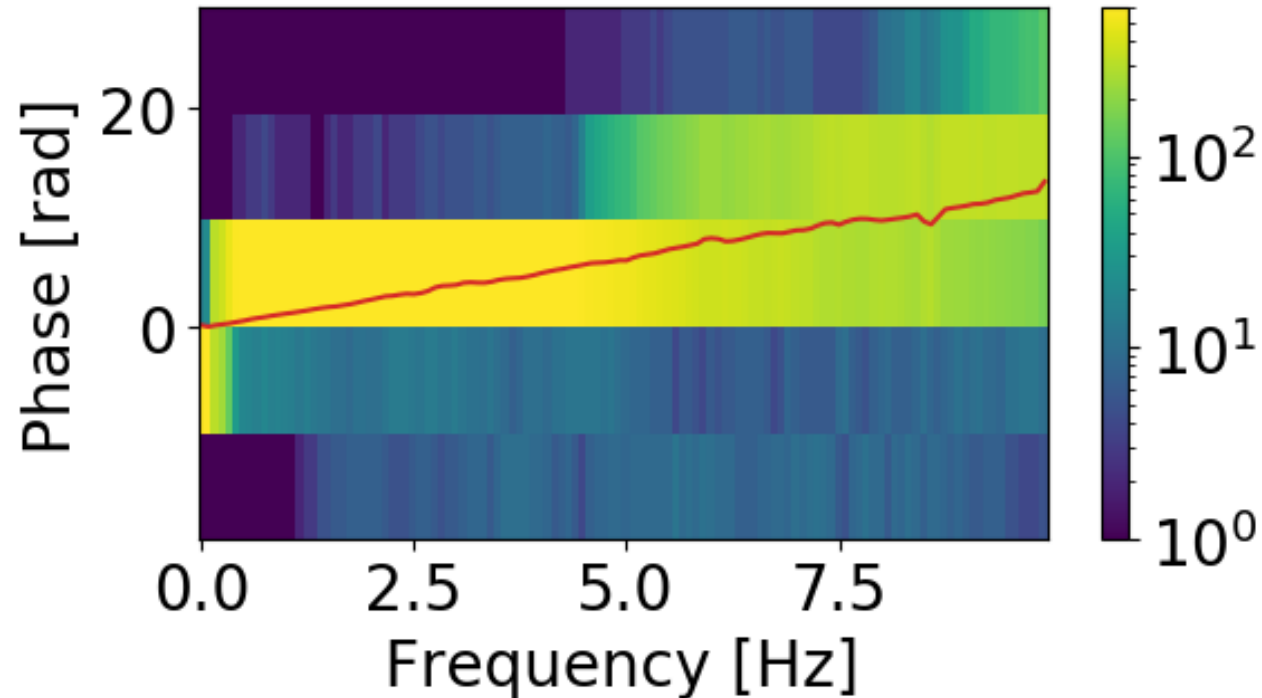


BS - seis n° 2-65 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.

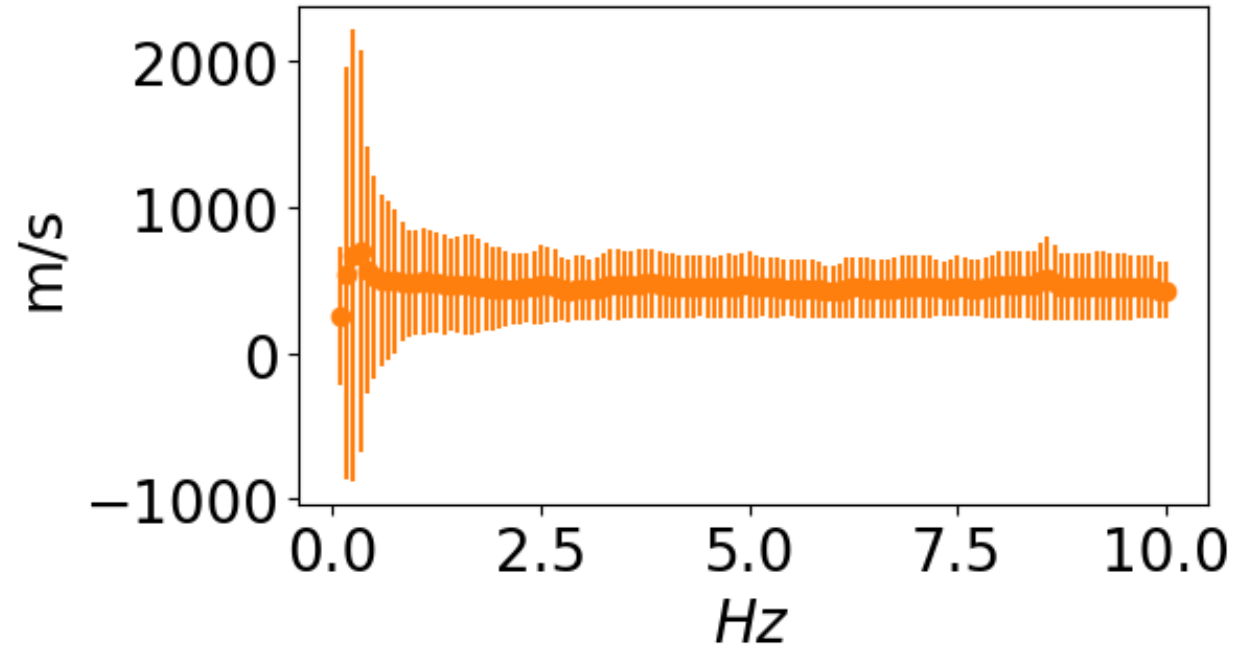


Mean vel = 460 m/s

BS - seis n° 5-100 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.

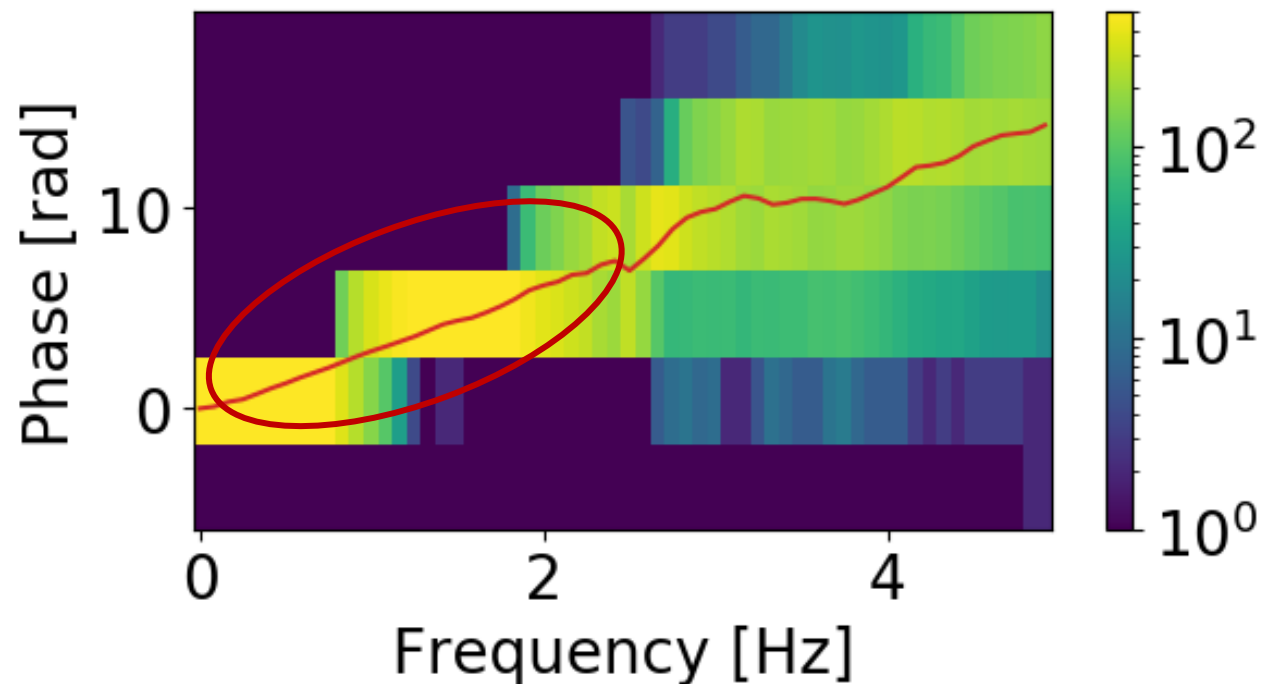


BS - seis n° 5-100 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.

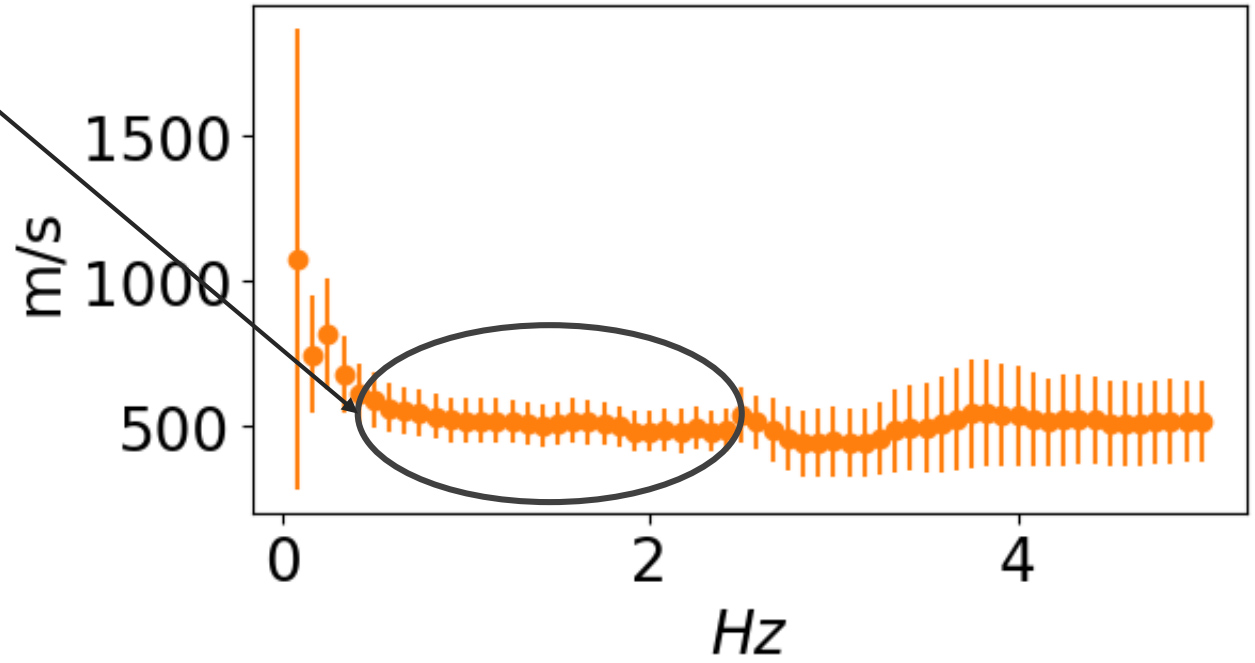


Mean vel = 519 m/s

BS - seis n° 3-236.5 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.

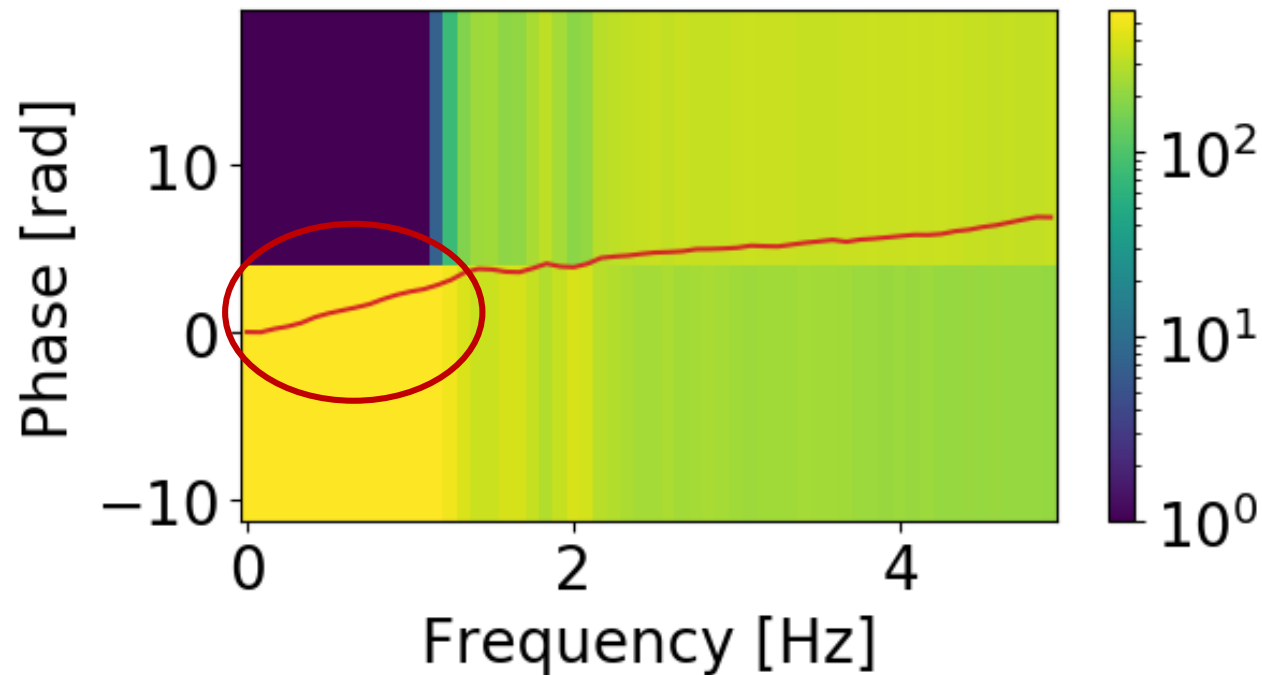


BS - seis n° 3-236.5 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.

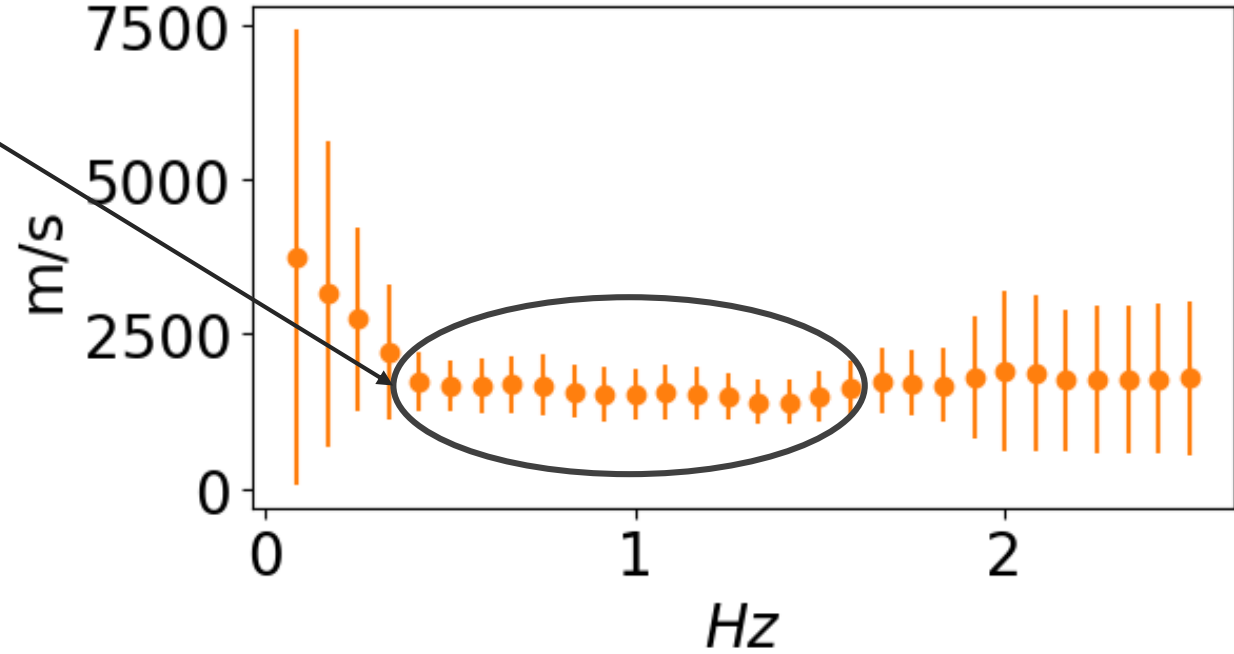


Mean vel = 1632 m/s

BS - seis n° 4-600 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.



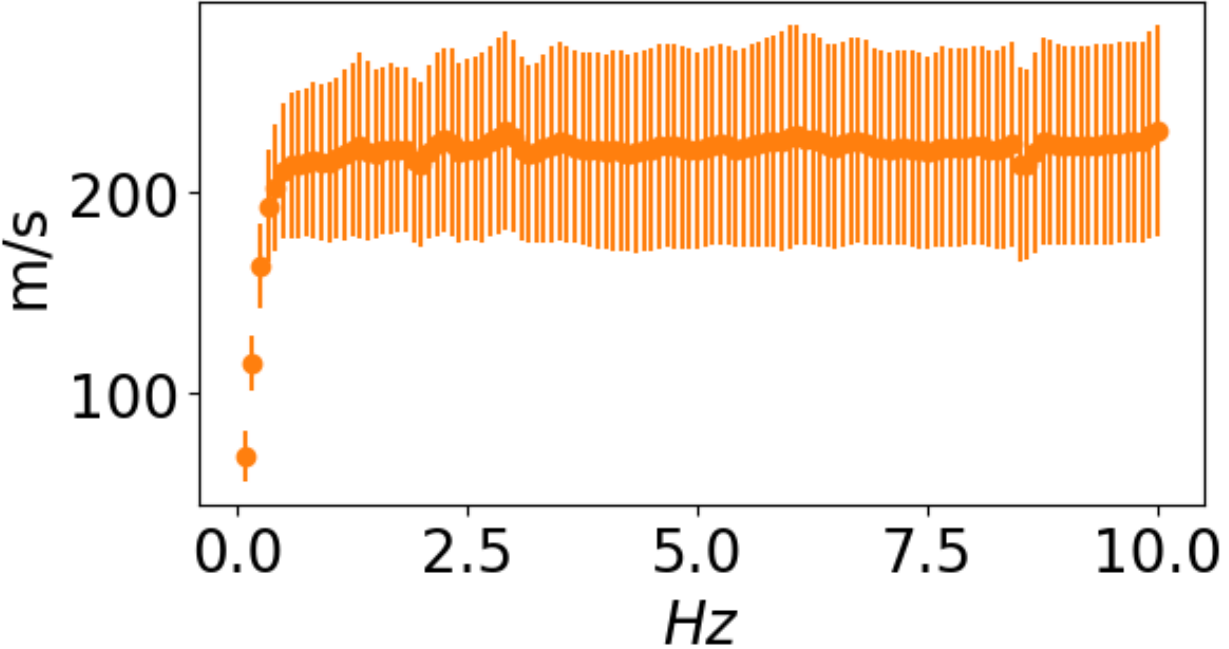
BS - seis n° 4-600 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.



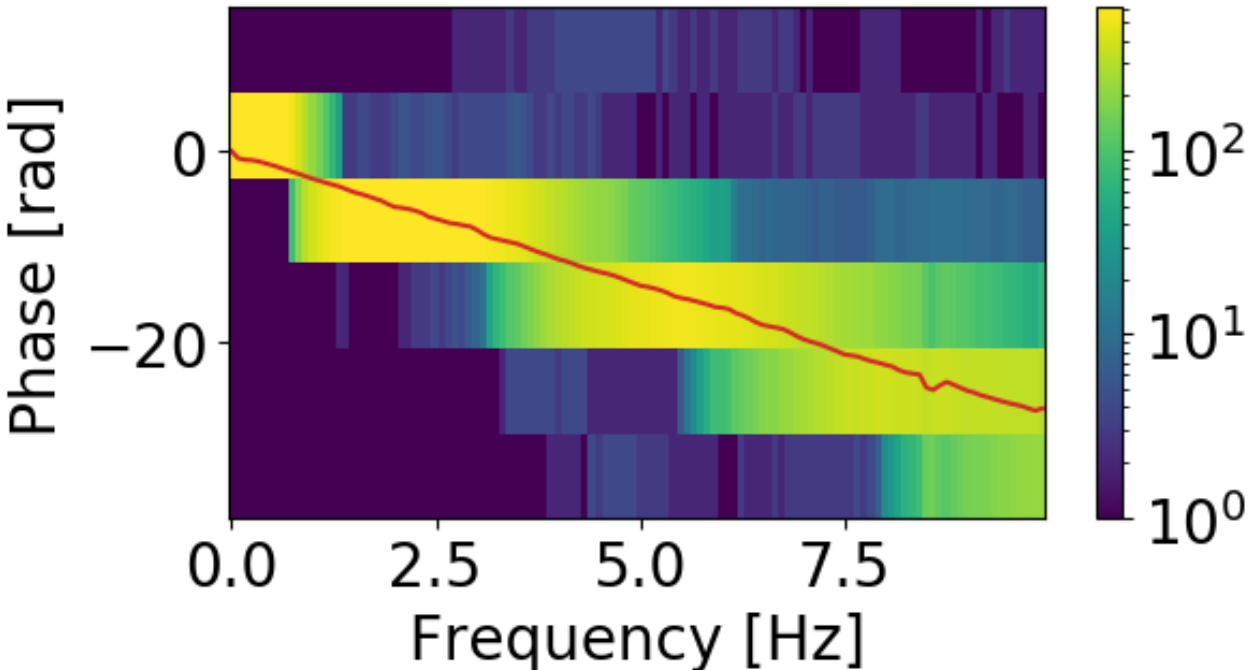
Y Arm

Mean vel = 223 m/s

BS - seis n° 7-100 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.



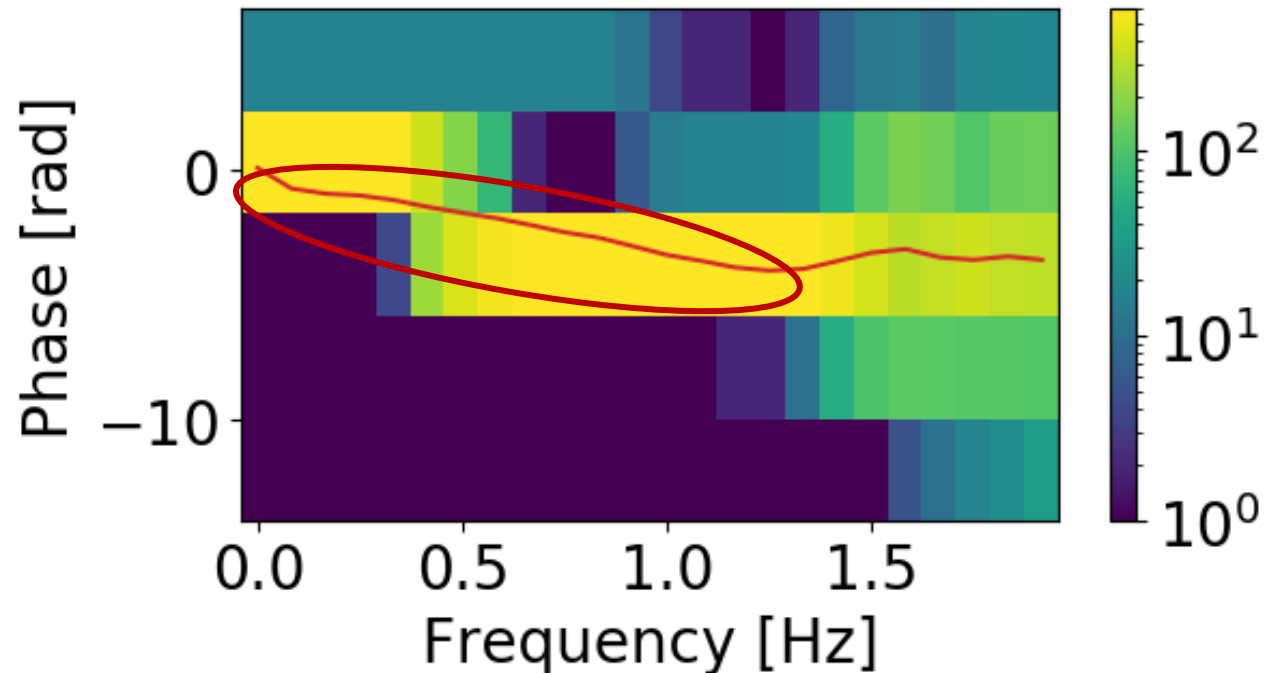
BS - seis n° 7-100 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.



Y Arm

Mean vel = 1030 m/s

BS - seis n° 6-600 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.



BS - seis n° 6-600 m
Averaging time: 120.0 seC.
FFT time: 12.0 sec.

