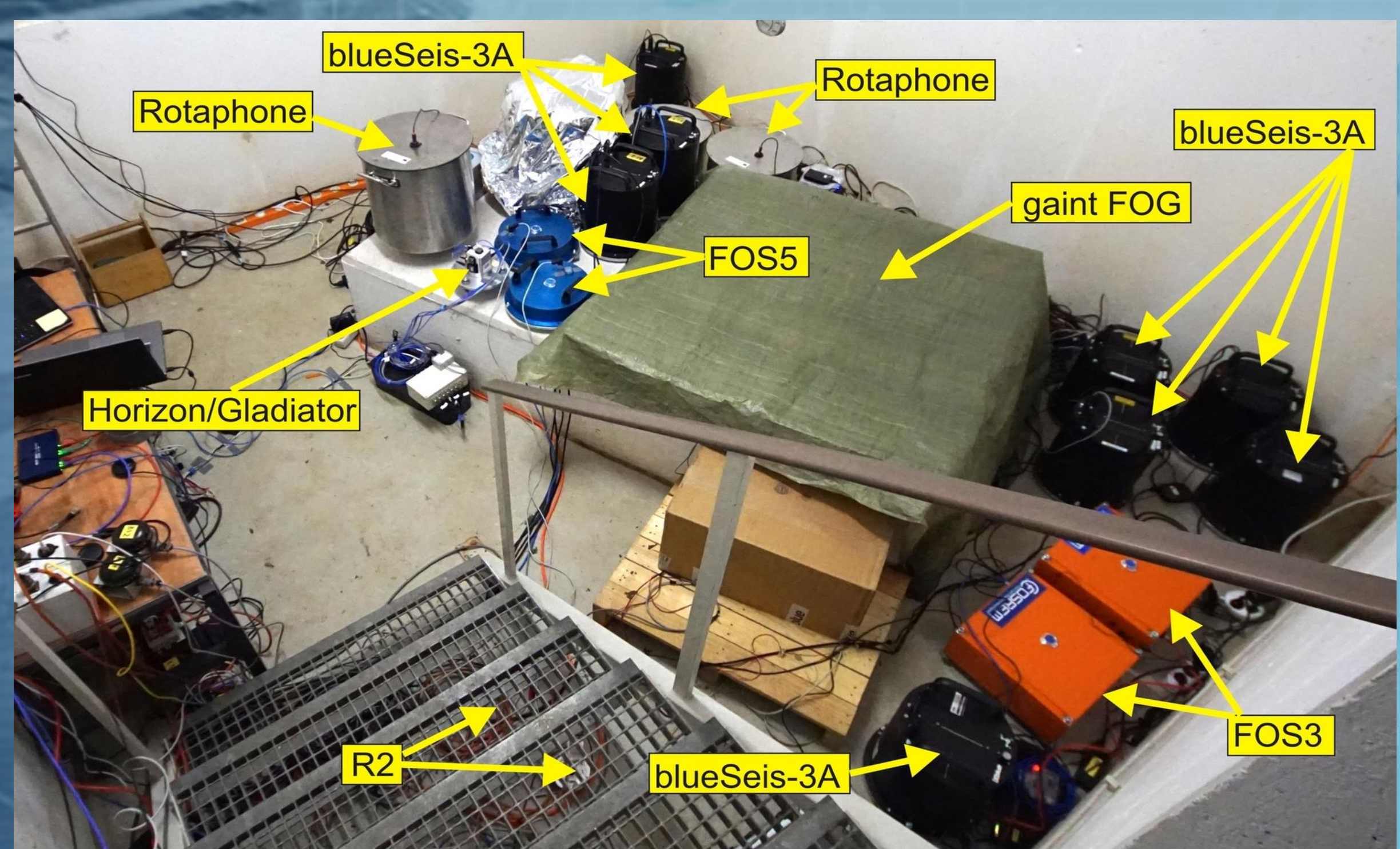


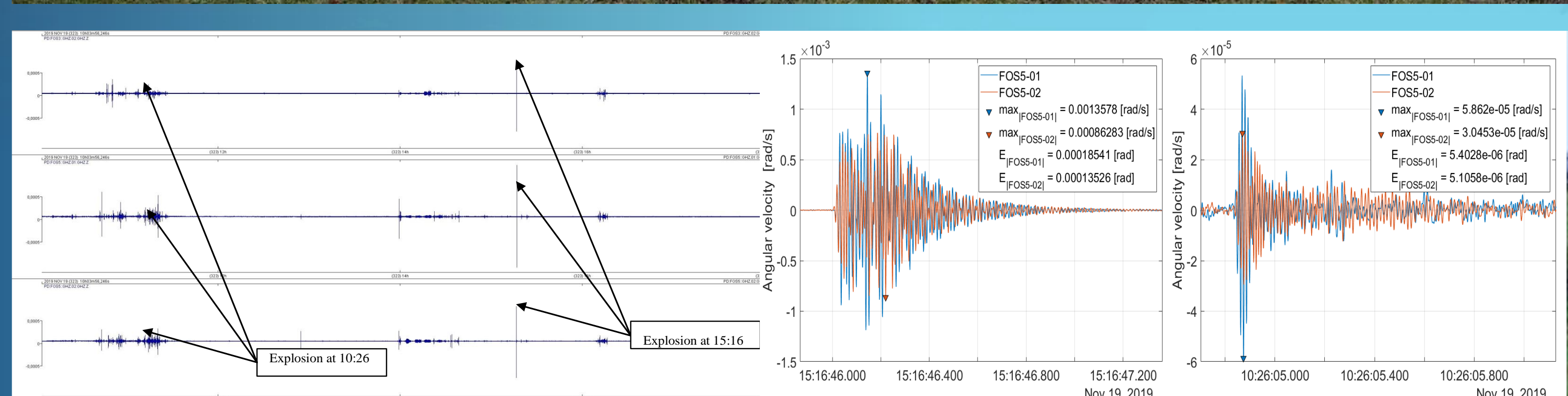
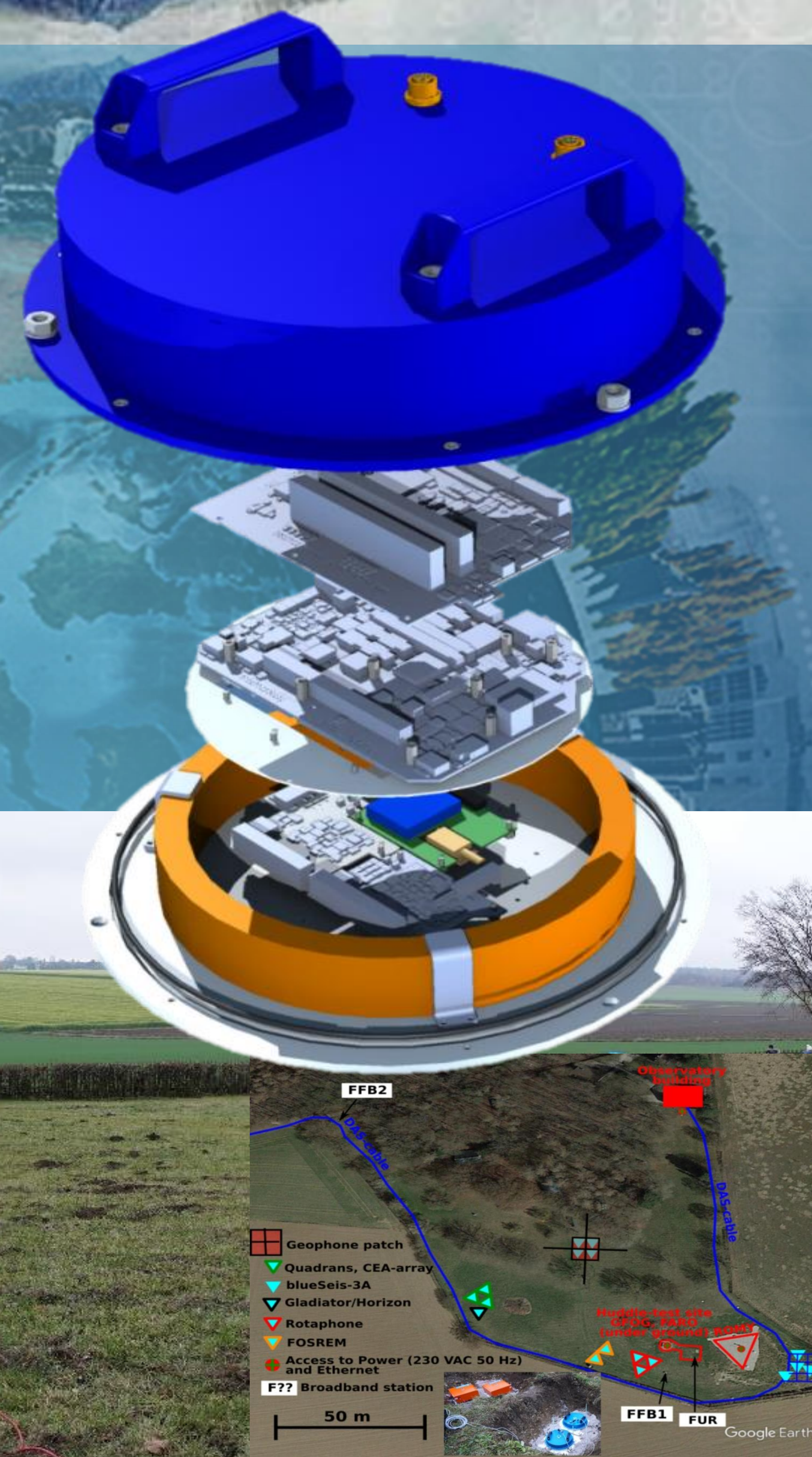


Towards uniformity of rotational eventc recording – common test engaging more than 40 sensors including a wide number of fiber-optic rotational seismometers

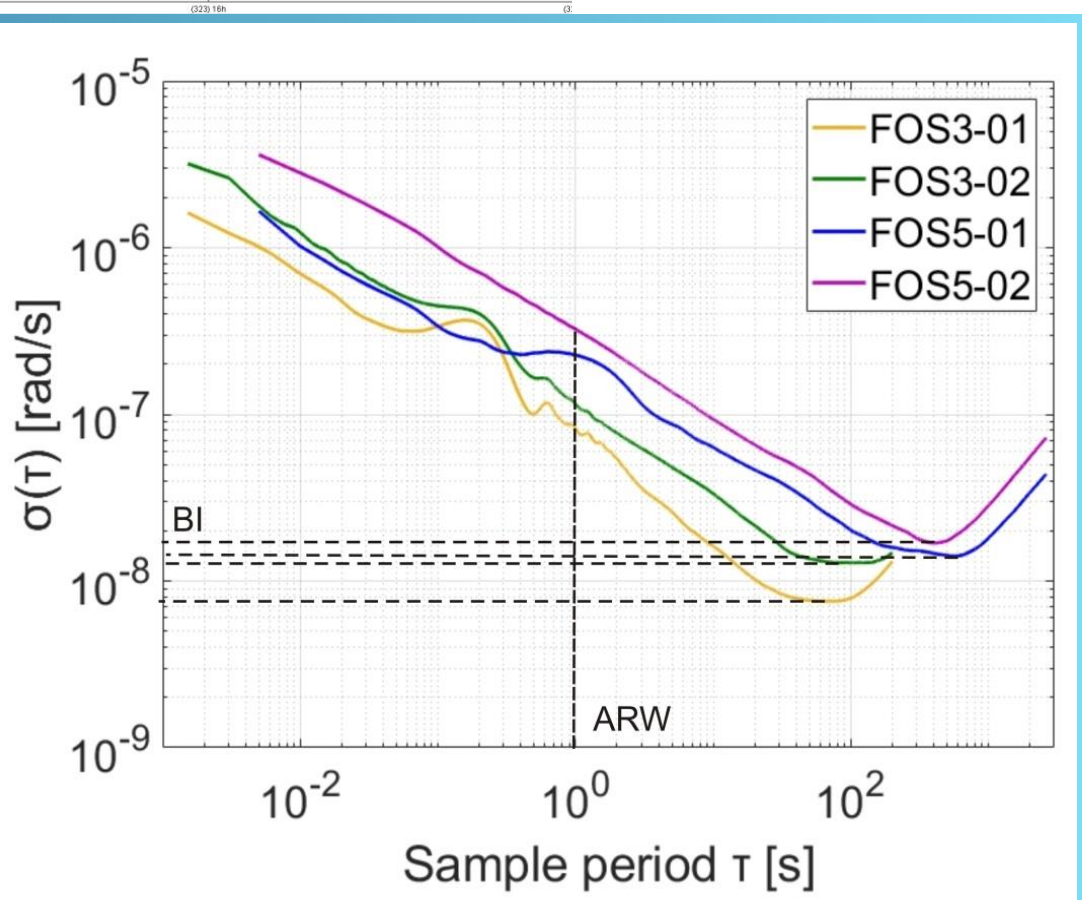
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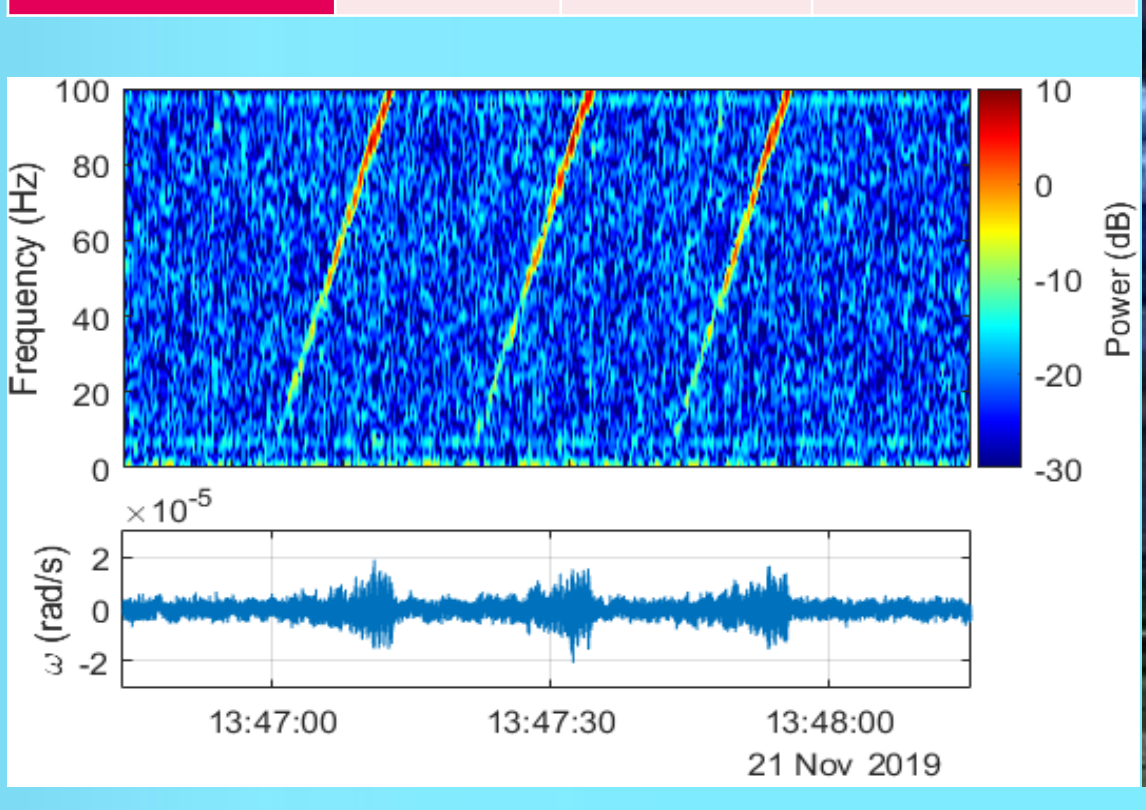
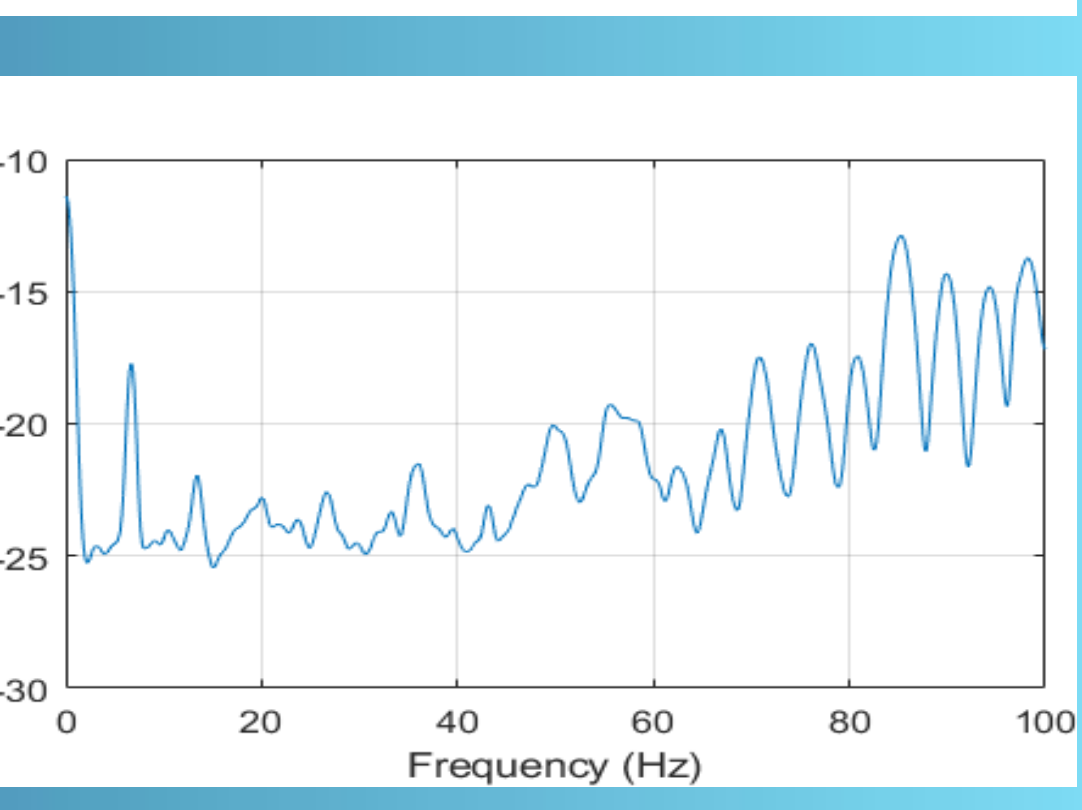
Fibre-Optic System for Rotational Events & phenomena Monitoring (FOSREM) is an interferometric optical fiber sensor designed to continuously observe rotational effects. It uses closed-loop configuration which is based on the compensatory phase measurement method as well as specific electronic system.



VibroSeis truck (peak force 275 kN) travelled in a distance 96-138 m from FOSs and generated seismic perturbations in the ground. Each series of ground impacts lasted 15 s with frequency increasing from about 7 Hz to 120 Hz



| Field view | FOS | ARW [rad/√s] | BI [rad/s] |
|------------|---------|-----------------------|-----------------------|
| | FOS3-01 | 8.70·10 ⁻⁸ | 1.13·10 ⁻⁸ |
| | FOS3-02 | 1.30·10 ⁻⁷ | 1.96·10 ⁻⁸ |
| | FOS5-01 | 2.16·10 ⁻⁷ | 2.28·10 ⁻⁸ |
| | FOS5-02 | 3.24·10 ⁻⁷ | 2.55·10 ⁻⁸ |



SEE OUR PRESENTATION
Time: September 1, 2022,
2:30 PM to 2:45 PM
Session:
Interferometric/Distributed
Sensors

„Large Fiber-Optic Seismograph detecting the rotation rate caused by natural factors as well as mining activities”