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Long-term measurements of infrasounds at Sos Enattos mine, one of the candidate sites for the Einstein Telescope

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Over two years ago, we installed an array of microphones to monitor infrasound activity at Sos Enattos mine, located in northeastern Sardinia, one of the candidate sites for the Einstein Telescope, future 3rd generation gravitational waves detector. The setup includes two microphones at a surface station and six additional microphones placed within underground cavities at varying depths. This configuration allows for comprehensive monitoring of infrasound signals across different environments within the site. During this long-term period, we continuously recorded synchronized signals from all microphones, capturing both short-term and long-term variations in the infrasound environment. We will present the initial results on the temporal variability of infrasound signals, the correlation between sensors located underground and on the surface, and the influence of external factors, such as weather conditions, on the recorded data.

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