



## **InSight / Mars InSight blindtest challenge at school**

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Now that the SEIS instrument is in place on Mars, scientists will receive a continuous signal transmitting the recorded sound. This signal will have a low sampling (2 Hz), will be disturbed by various environmental parameters (wind, temperature) ... and despite everything it will be necessary to detect, in this weak signal (on Earth the movement of the ground is sampled on 100 Hz), the possible seismic events caused ... by a meteorite impact, or a break in the Martian crust. The first signals are expected in the scientific community in 2019.

To prepare to exploit this signal, the scientific community has launched a challenge: The 'Mars InSight blind test'. A small team of seismologists in Zurich has generated a year of seismicity (Earth Year 2019) on Mars with synthesis events, as they could be recorded on the 'SEIS' instrument and as they would be transmitted on Earth. The challenge is to examine this signal over a year, and to identify the seismic events that are hidden there.

The network of schools equipped with seismometer for educational purposes in France took part in this challenge. The main objective of this activity concerns mainly the pedagogical approach followed rather than establishing a precise catalogue of seismic events.

The poster will present the main steps taken with high school students since the analysis of seismograms, the frequency content of the signal, the recording of noise from the environment to the location of a seismic event from a single station