

Supplement of

The INSIEME seismic network: an experimental observatory for studying induced seismicity in the High Agri Valley (southern Italy)

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1. Interactive extension of Figure 1: description of file “INSIEME-network.kmz”

The supplemental file “INSIEME-network.kmz” contains the following items:

- 1) Layout of the INSIEME seismic network (blue arrows) including a brief description of each station (by clicking on the symbol of the station).
- 15 2) Layout of the virtual network composed by public (green arrows) and private (yellow arrows) stations; the network code is displayed by clicking on the symbol of each station.
- 3) Relocated 2002-2012 seismicity (red circles) of the High Agri Valley from Serlenga and Stabile (2019); location coordinates are displayed by clicking on the symbol of each seismic event.
- 4) Location of the CM2 well with additional information regarding injection activities.
- 20 5) Areas of the High Agri Valley belonging to the National Park “Val d’Agri - Lagonegrese”.

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2. Supplementary Figures S1-S8

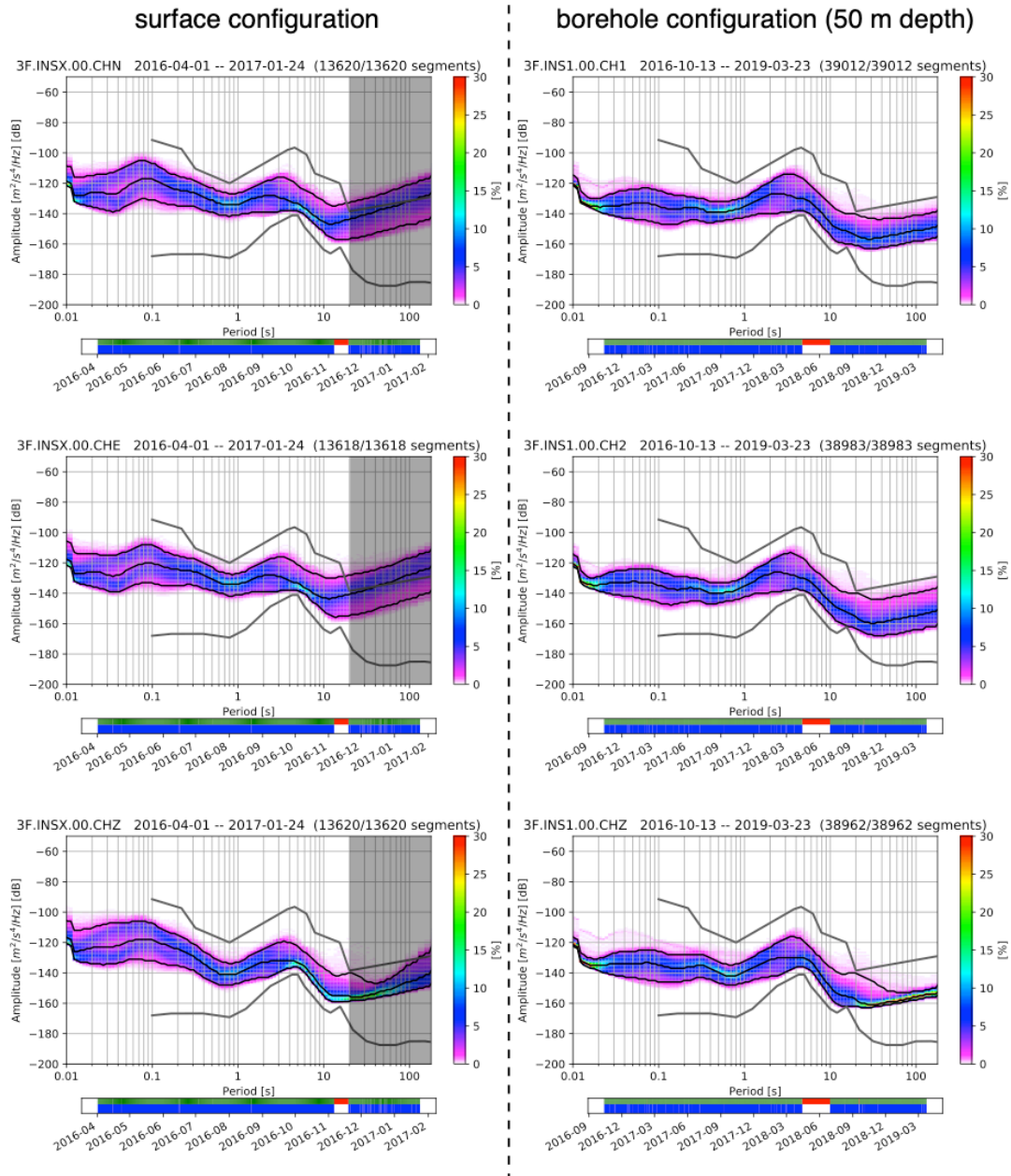


Figure S1: PPSD computed for each component and over the whole period of operation of the of station INSX (left panels), with sensor installed at surface, and station INS1 (right panels), with sensor installed at 50 m depth. The 5th, the 50th (median), and the 95th percentiles are visualized with black curves. The two grey curves in each panel indicate the New High and Low Noise models. For station INS1, the period from 2018-04-14 to 2018-06-29 was not considered because of current instability that caused a significant disturbance on the signal. Periods above 20 s are highlighted in grey if the sensor has flat response up to that period.

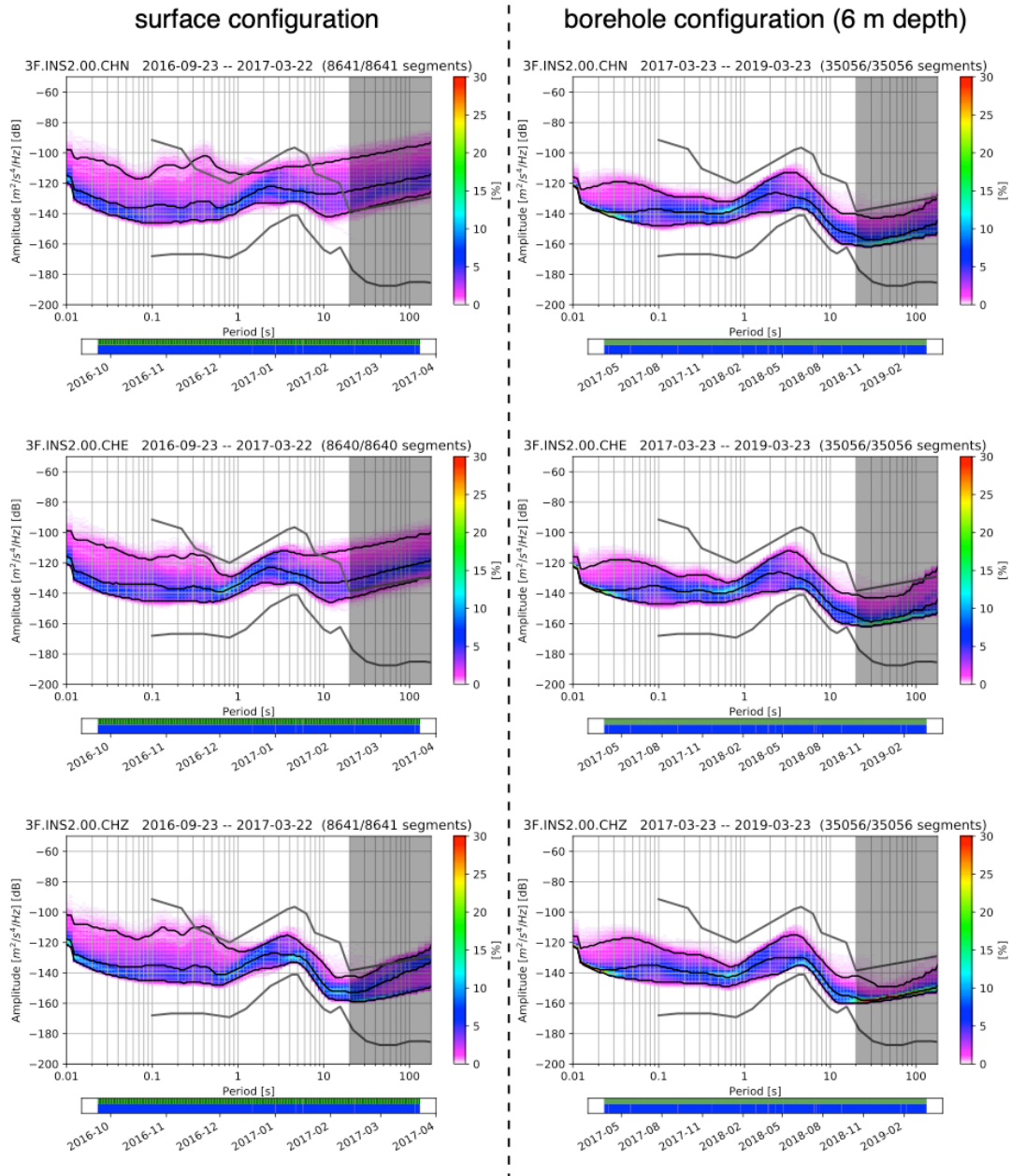


Figure S2: PPSPD computed for each component and over the whole period of operation of the station INS2 when sensor was installed at surface (left panels), and when sensor was installed at 6 m depth (right panels). The 5th, the 50th (median), and the 95th percentiles are visualized with black curves. The two grey curves in each panel indicate the New High and Low Noise models. Periods above 20 s are highlighted in grey because the sensor has flat response up to that period.

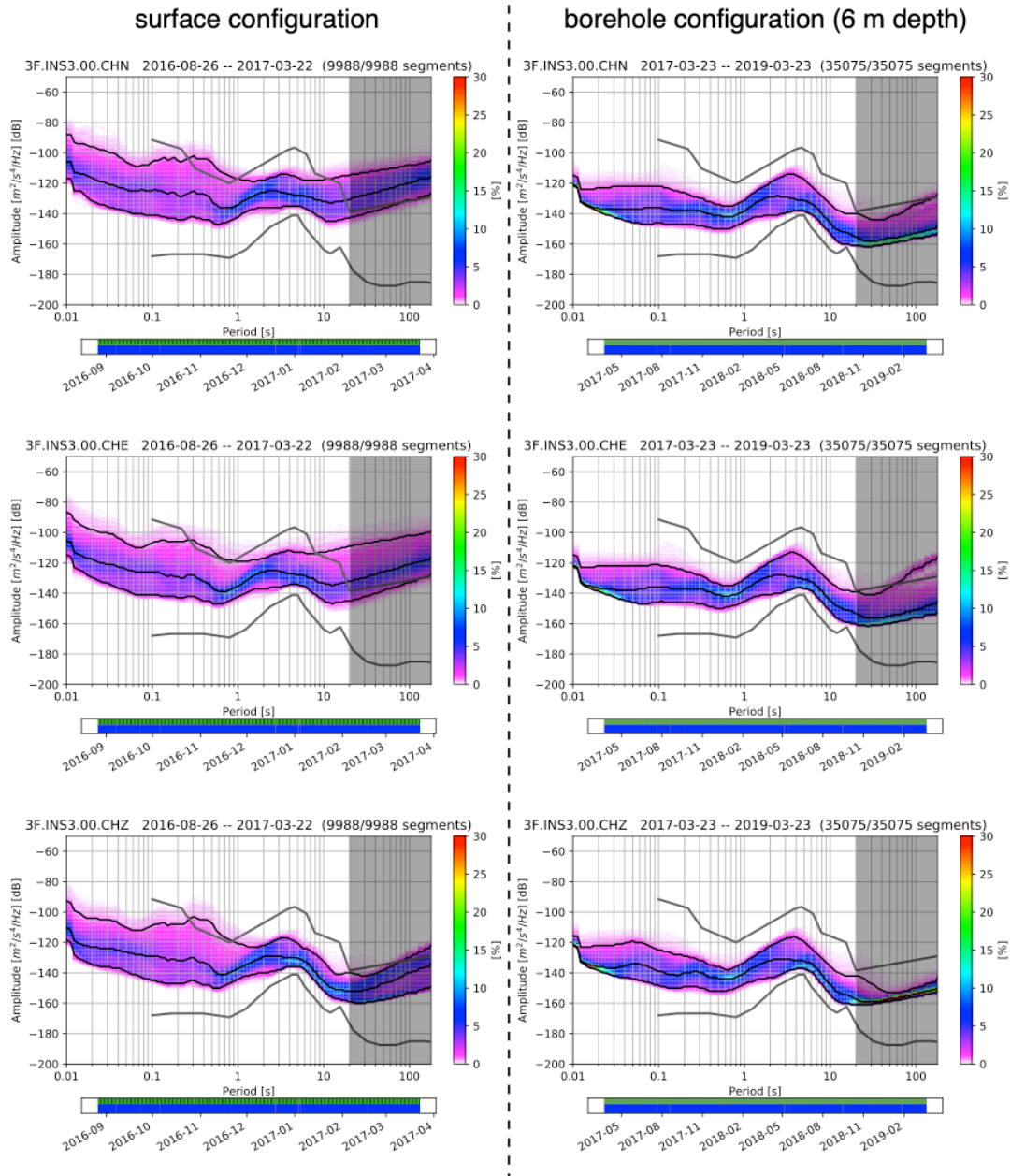


Figure S3: PPSD computed for each component and over the whole period of operation of the of station INS3 when sensor was installed at surface (left panels), and when sensor was installed at 6 m depth (right panels). The 5th, the 50th (median), and the 95th percentiles are visualized with black curves. The two grey curves in each panel indicate the New High and Low Noise models. Periods above 20 s are highlighted in grey because the sensor has flat response up to that period.

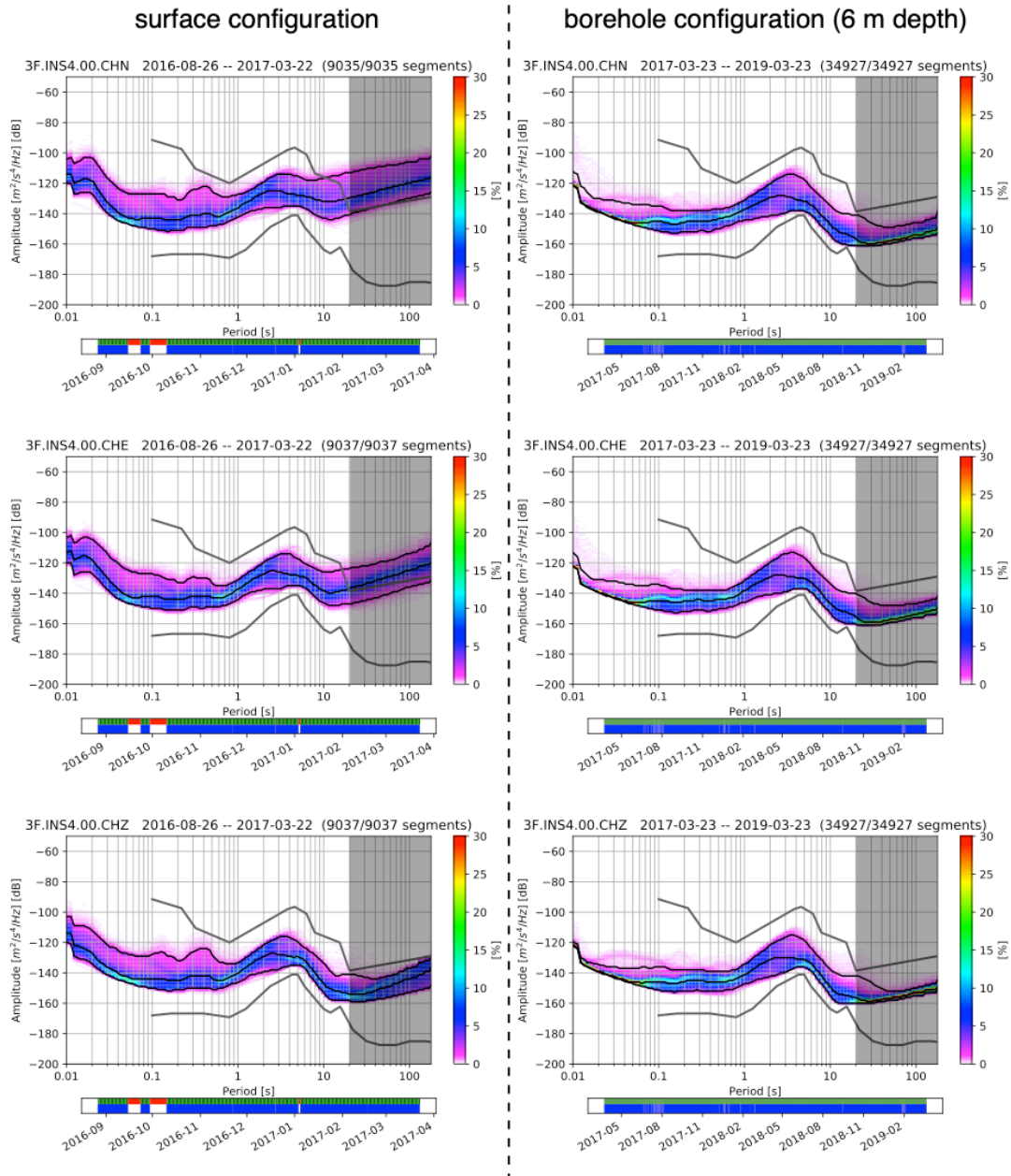


Figure S4: PPSSD computed for each component and over the whole period of operation of the of station INS4 when sensor was installed at surface (left panels), and when sensor was installed at 6 m depth (right panels). The 5th, the 50th (median), and the 95th percentiles are visualized with black curves. The two grey curves in each panel indicate the New High and Low Noise models. Periods above 20 s are highlighted in grey because the sensor has flat response up to that period.

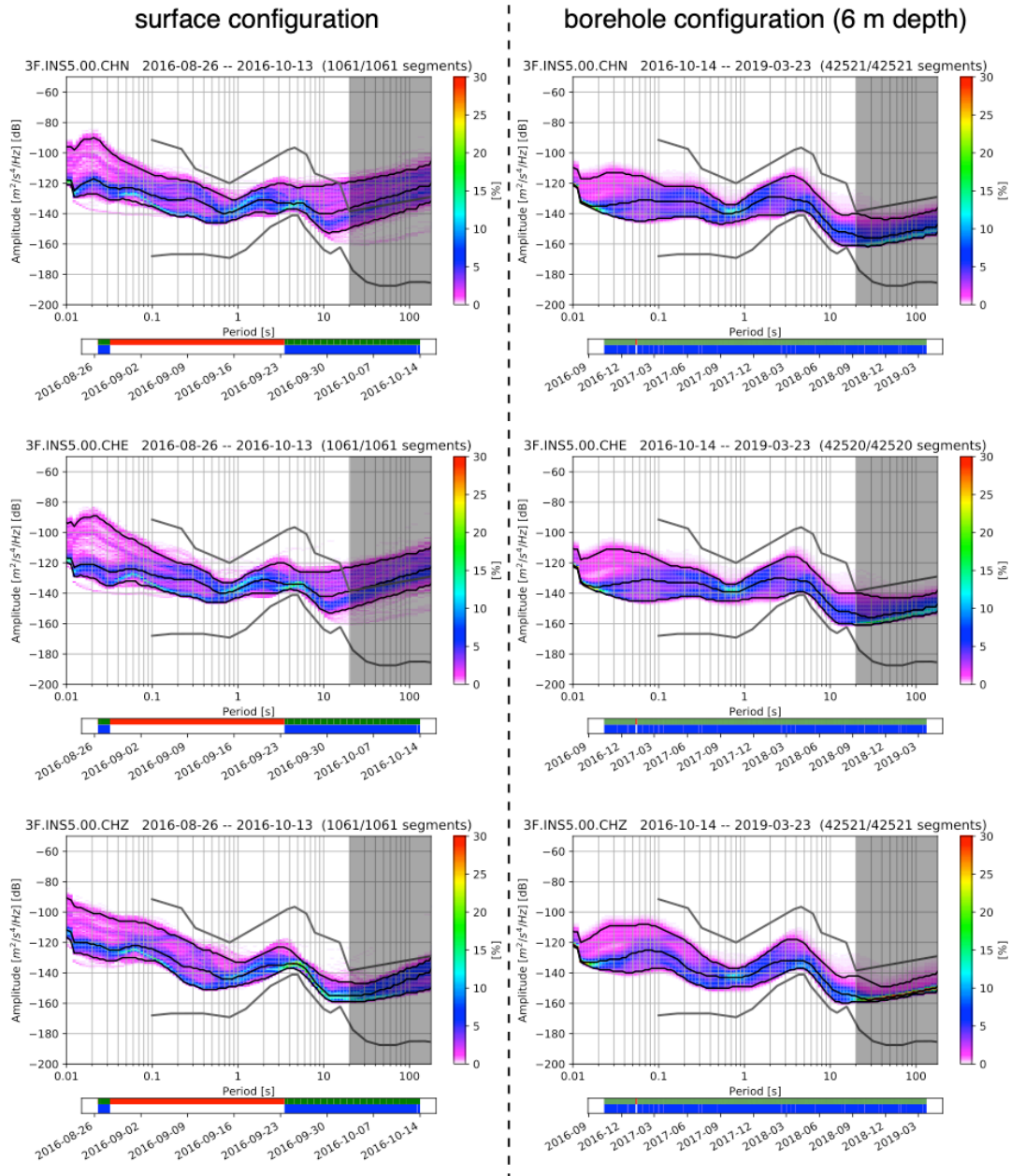


Figure S5: PPSSD computed for each component and over the whole period of operation of the of station INS5 when sensor was installed at surface (left panels), and when sensor was installed at 6 m depth (right panels). The 5th, the 50th (median), and the 95th percentiles are visualized with black curves. The two grey curves in each panel indicate the New High and Low Noise models. Periods above 20 s are highlighted in grey because the sensor has flat response up to that period.

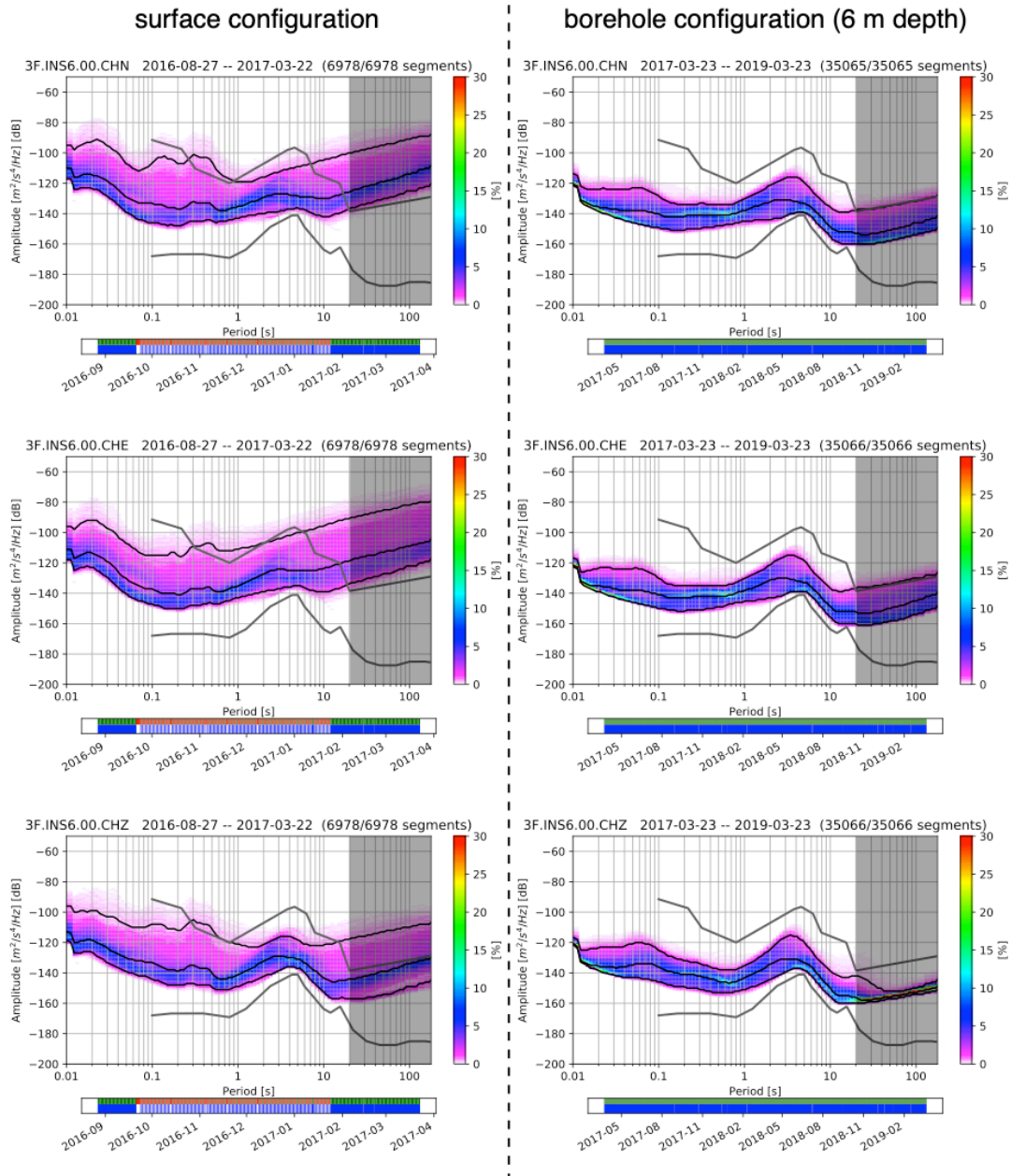


Figure S6: PPSD computed for each component and over the whole period of operation of the station INS6 when sensor was installed at surface (left panels), and when sensor was installed at 6 m depth (right panels). The 5th, the 50th (median), and the 95th percentiles are visualized with black curves. The two grey curves in each panel indicate the New High and Low Noise models. Periods above 20 s are highlighted in grey because the sensor has flat response up to that period.

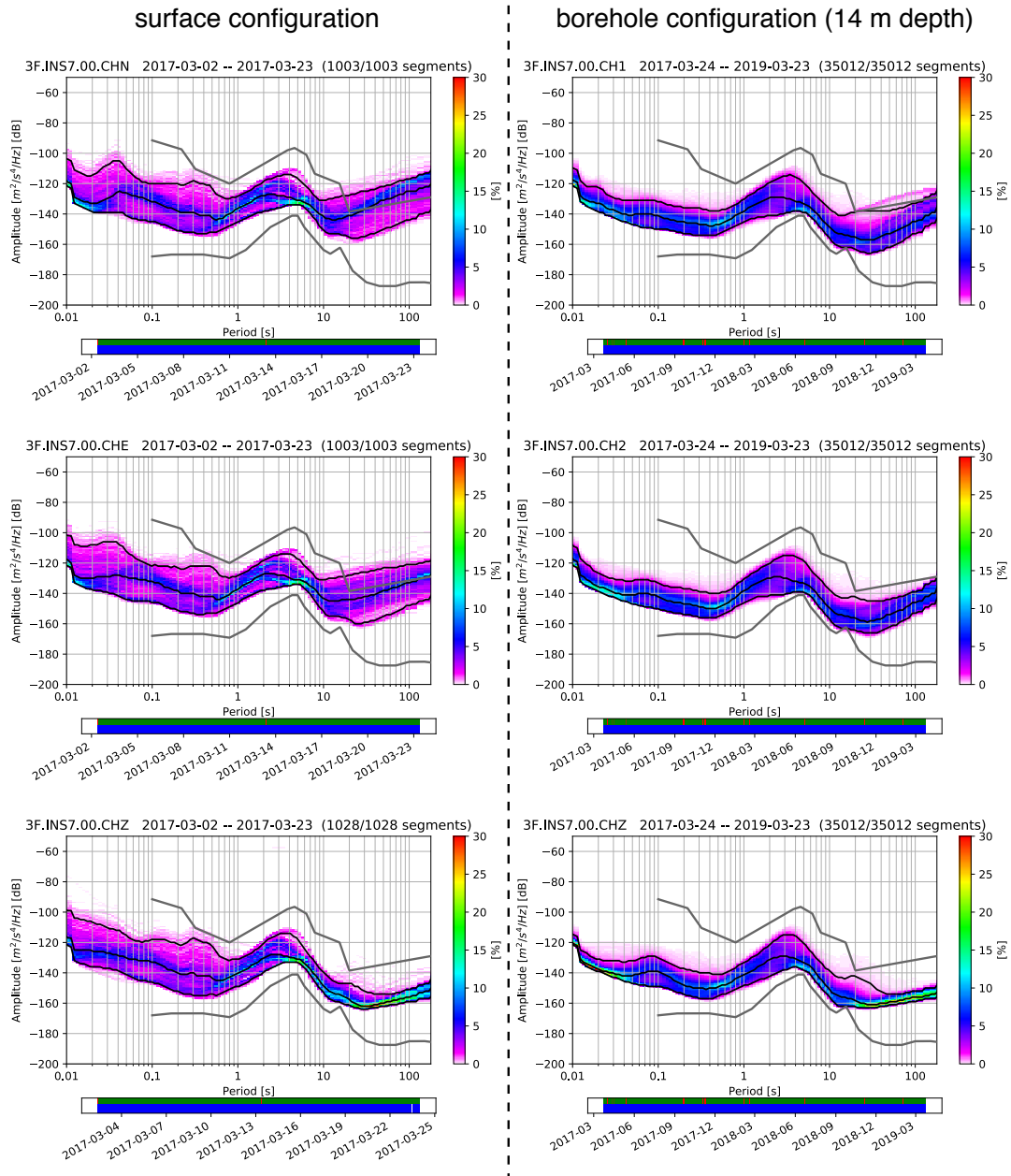


Figure S7: PPSP computed for each component and over the whole period of operation of the of station INS7 when sensor was installed at surface (left panels), and when sensor was installed at 14 m depth (right panels). The 5th, the 50th (median), and the 95th percentiles are visualized with black curves. The two grey curves in each panel indicate the New High and Low Noise models.

surface configuration

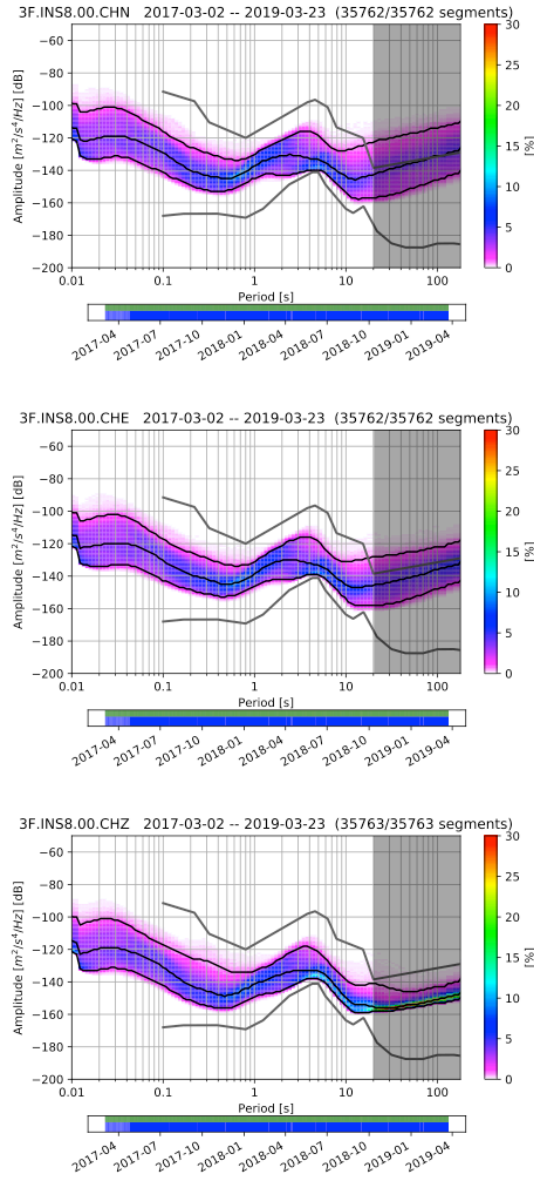


Figure S8: PPSD computed for each component and over the whole period of operation of the of station INS8. The 5th, the 50th (median), and the 95th percentiles are visualized with black curves. The two grey curves in each panel indicate the New High and Low Noise models. Periods above 20 s are highlighted in grey because the sensor has flat response up to that period.