

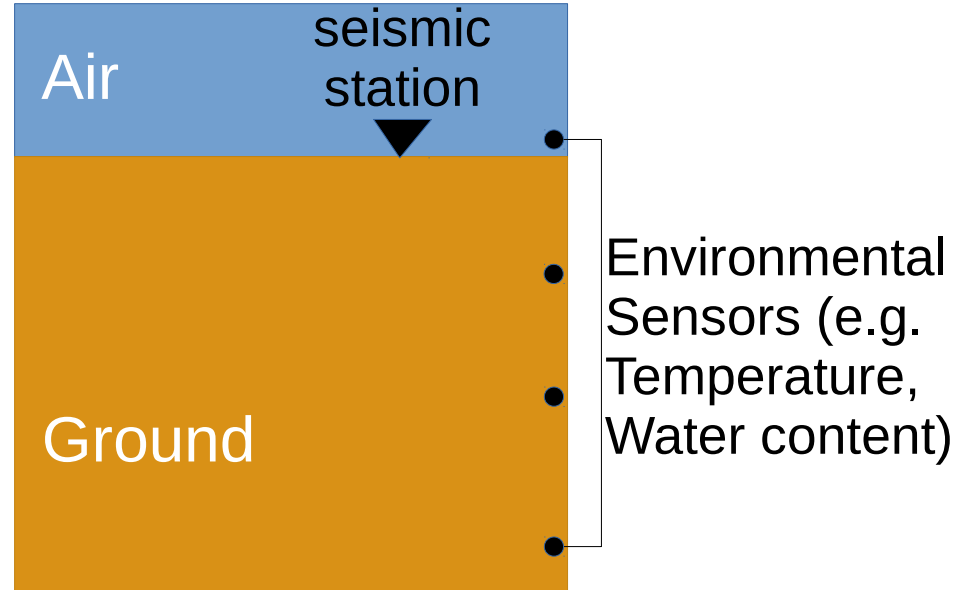
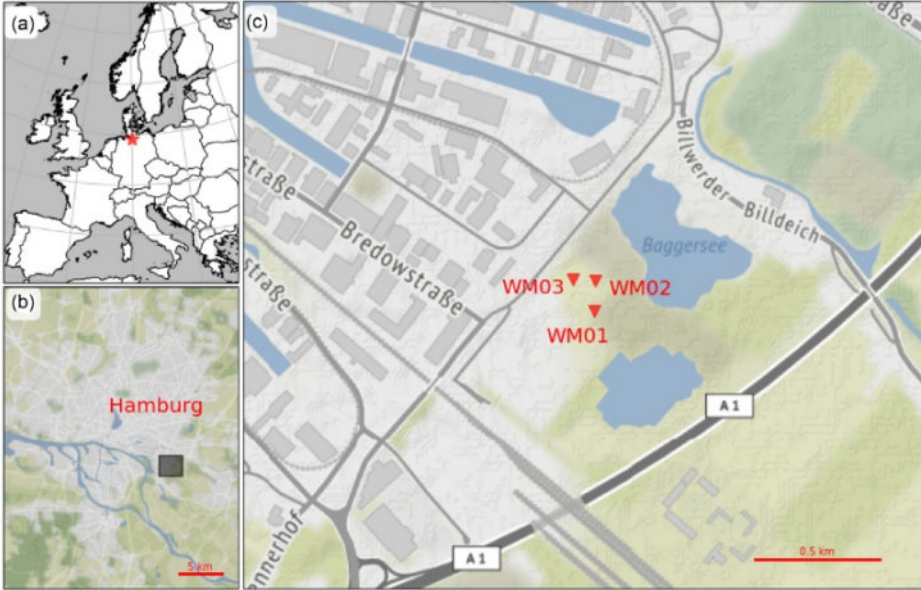
Exploring seismic time series with artificial intelligence: applications of blind source separation

26.05.2022@Carcans

René Steinmann, Léonard Seydoux, Michel Campillo

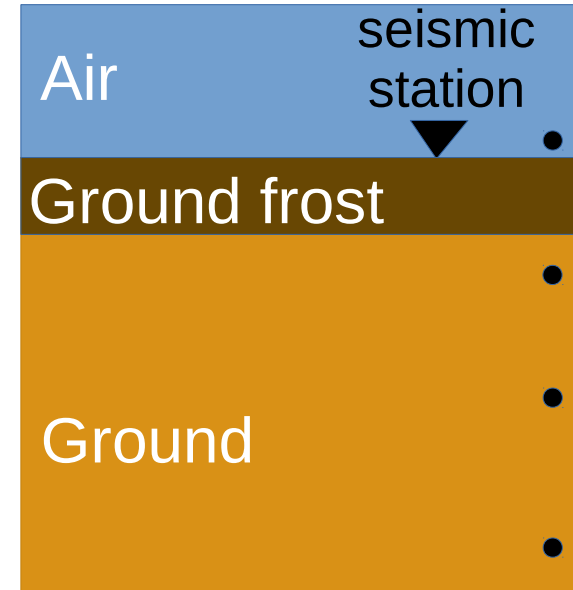
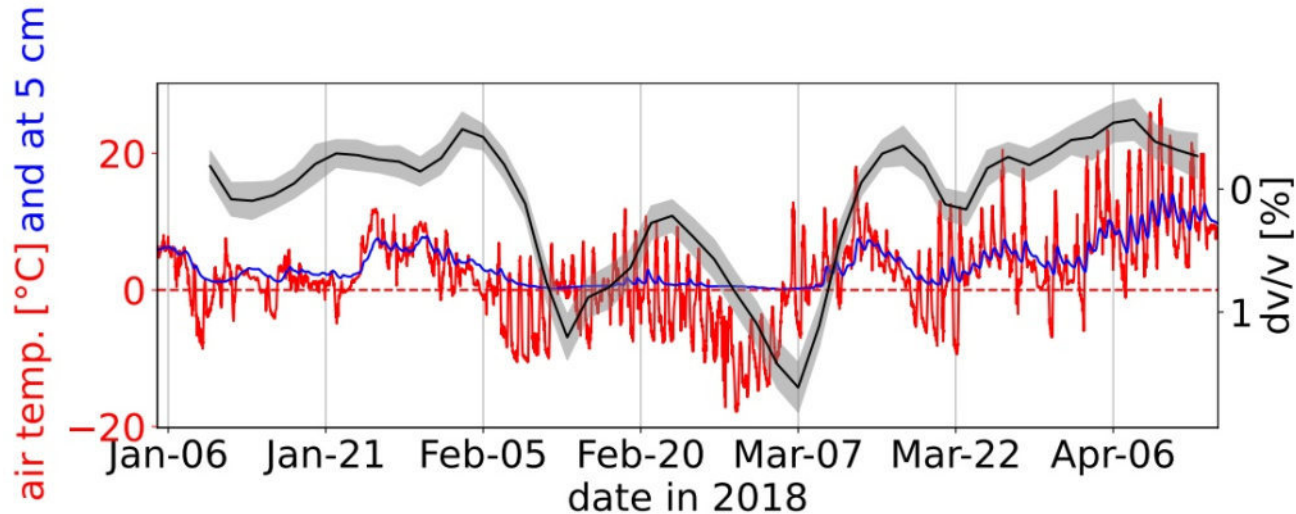


Application: Seismometers for the Hamburg Urban Soil Climate Observatory (HUSCO)



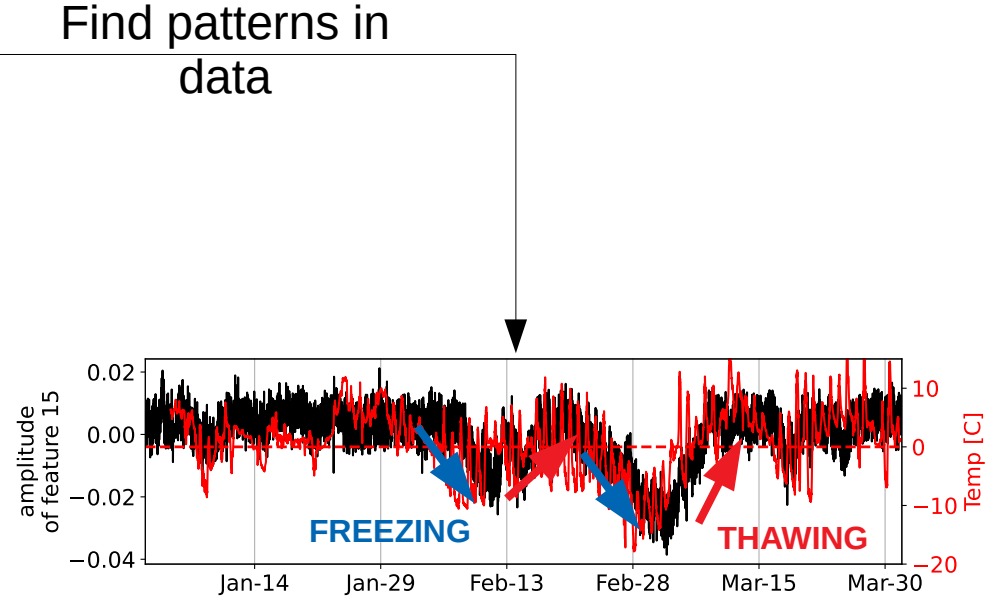
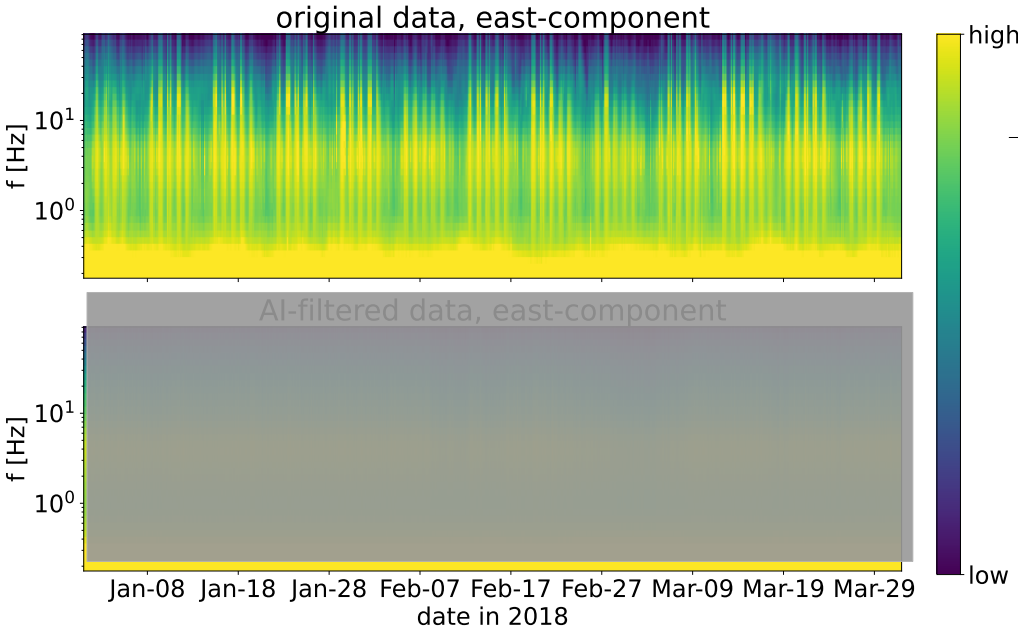
Many different types of sources!

Surprising results during winter 2018: detection of centimeter thick ground frost with seismic data

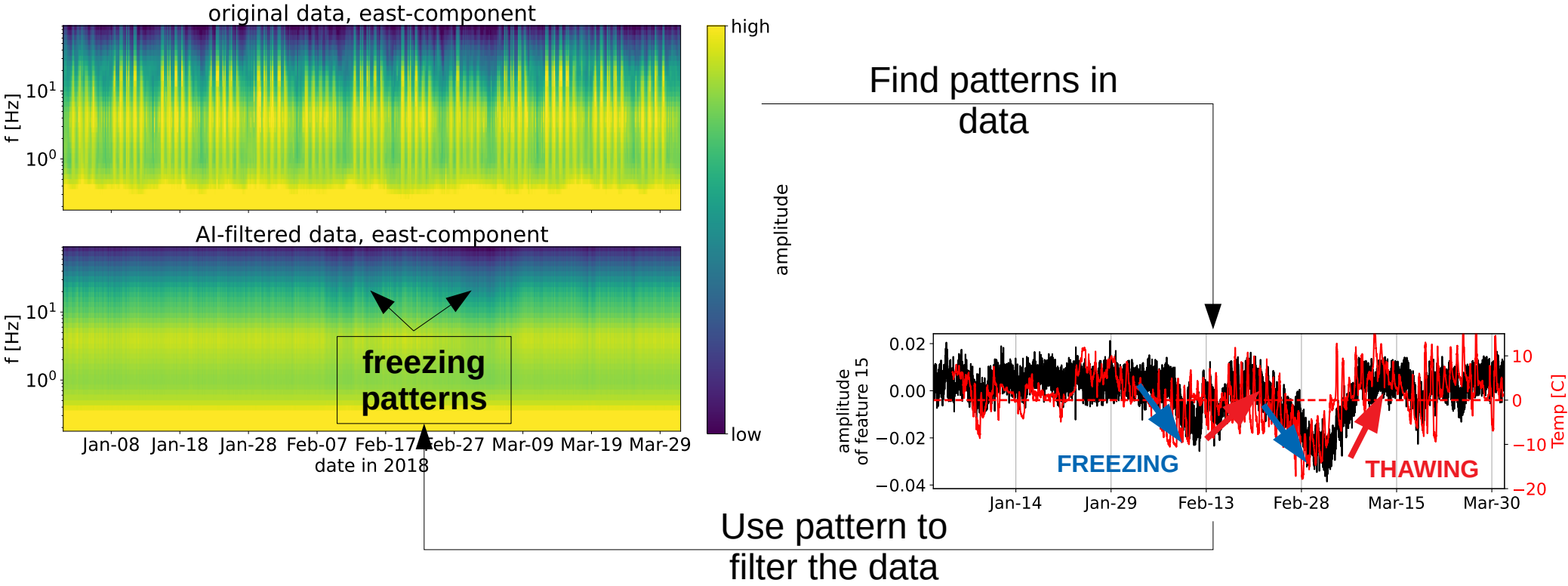


Continuous medium change due to freezing and thawing.

Retrieving changes of the medium directly from seismic time series



Retrieving changes of the medium directly from seismic time series



**What other patterns can we detect blindly in seismic data?
How to extend blind source separation to seismic arrays?**