

LU ĢEOLOĢIJAS NODAĻA

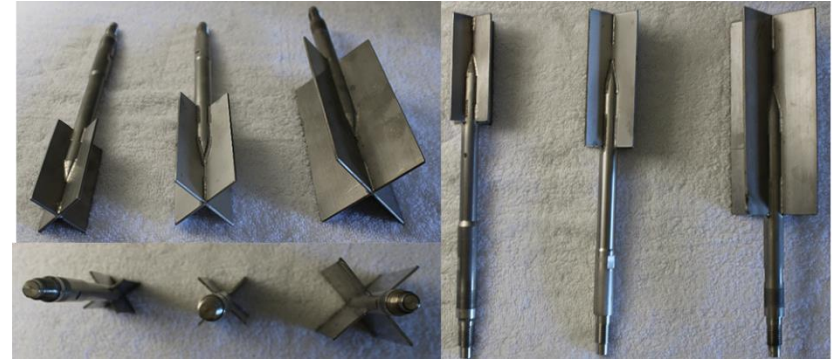


Research facilities and methods - geotechnics



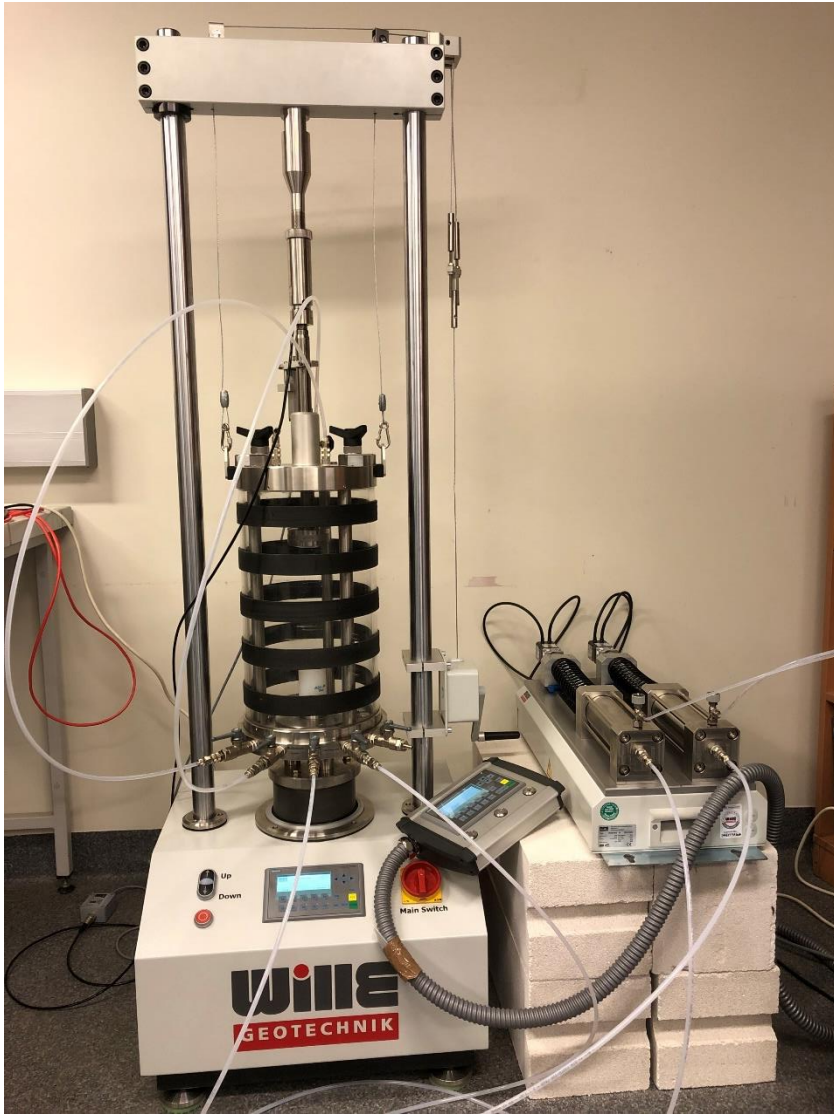
Geotechnical ground drilling and site investigation

Research facilities and methods - geotechnics



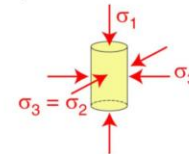
In situ soil testing and sampling

Research facilities and methods - geotechnics

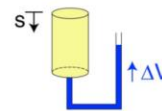


CD-Test

I) Consolidation

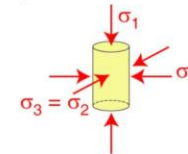


II) Drained loading (shearing)

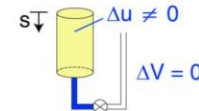


CU-Test

I) Consolidation

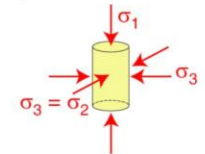


II) Undrained loading (shearing)

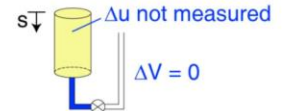


UU-Test

I) No consolidation



II) Undrained loading (shearing)



Advanced soil tests - triaxial test

Research facilities and methods - geotechnics



Advanced soil tests - direct simple shear and oedometer machines



MicroDeval test



Los Angeles test

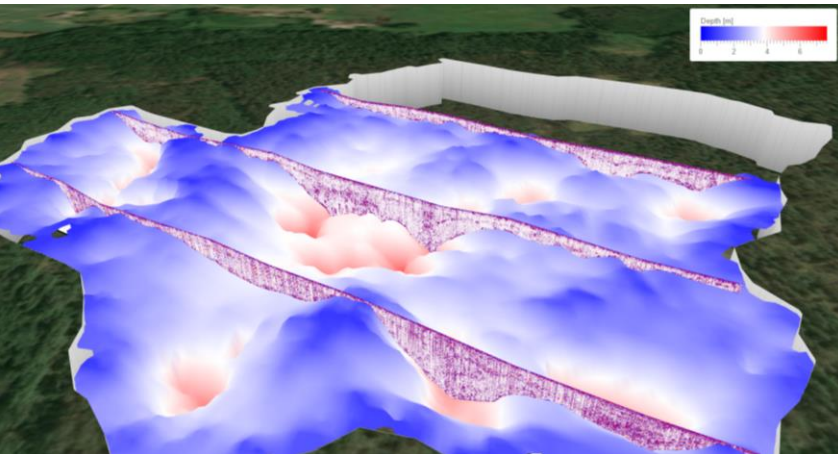


Research facilities and methods - geophysics

Electrical resistivity tomography (ERT)



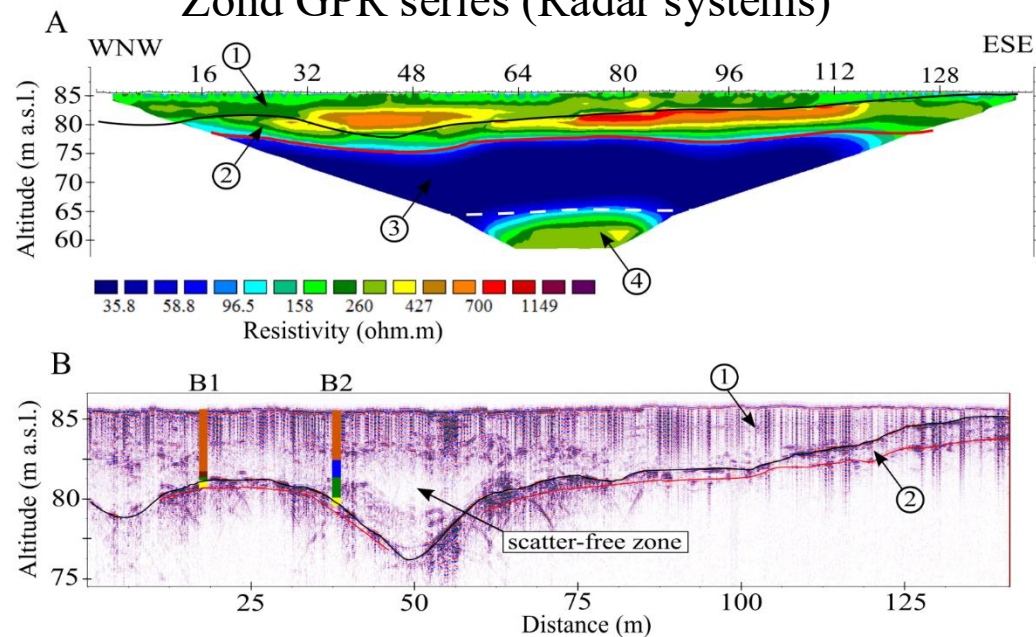
Syscal Pro Switch (IRIS Instruments)



Ground penetrating radar (GPR)



Zond GPR series (Radar systems)



Research facilities and methods - geophysics

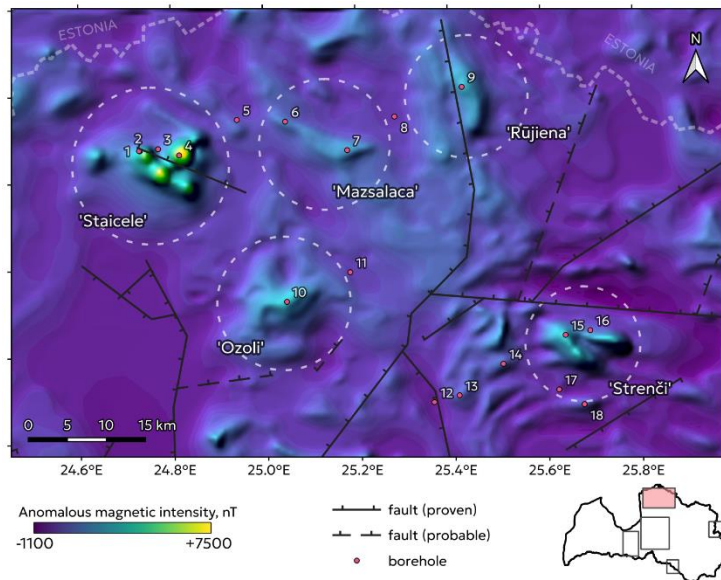
Magnetic field measurements



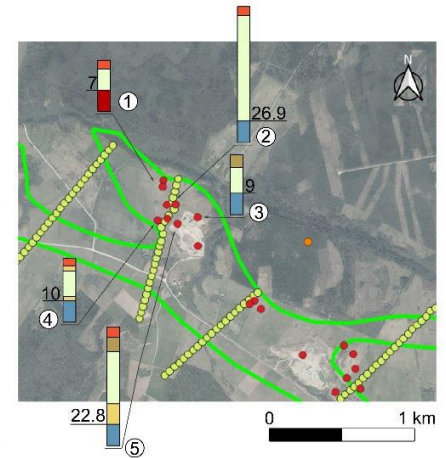
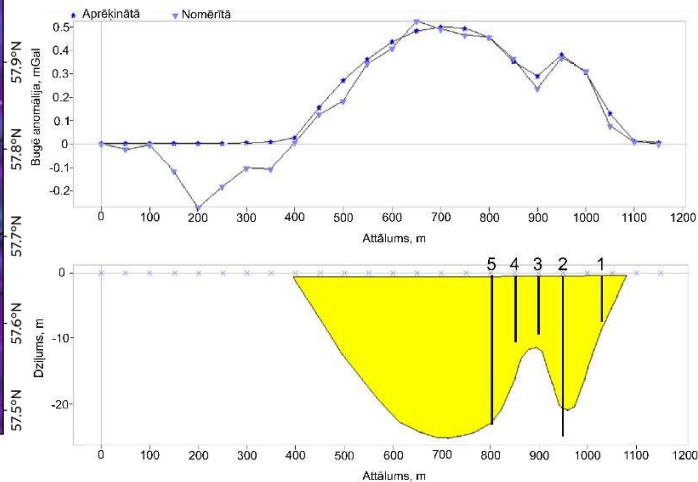
Gravity field measurements



GSM 19 (GEM Systems)



CG-6 (Scintrex)

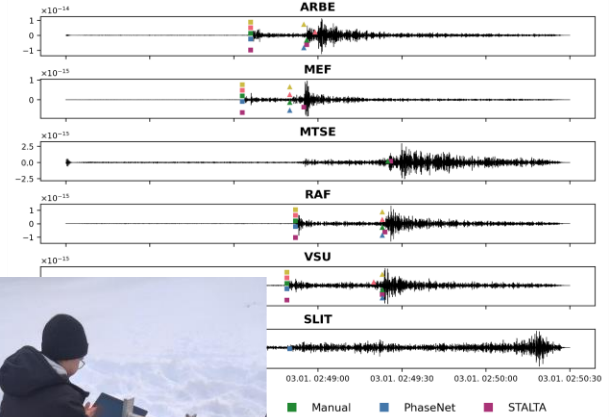


Research facilities and methods - geophysics

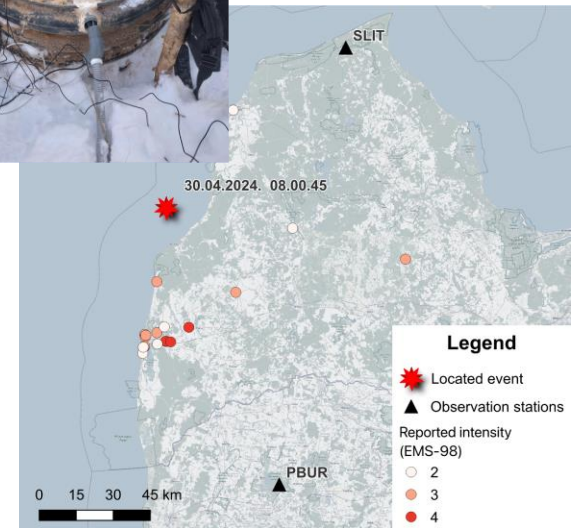
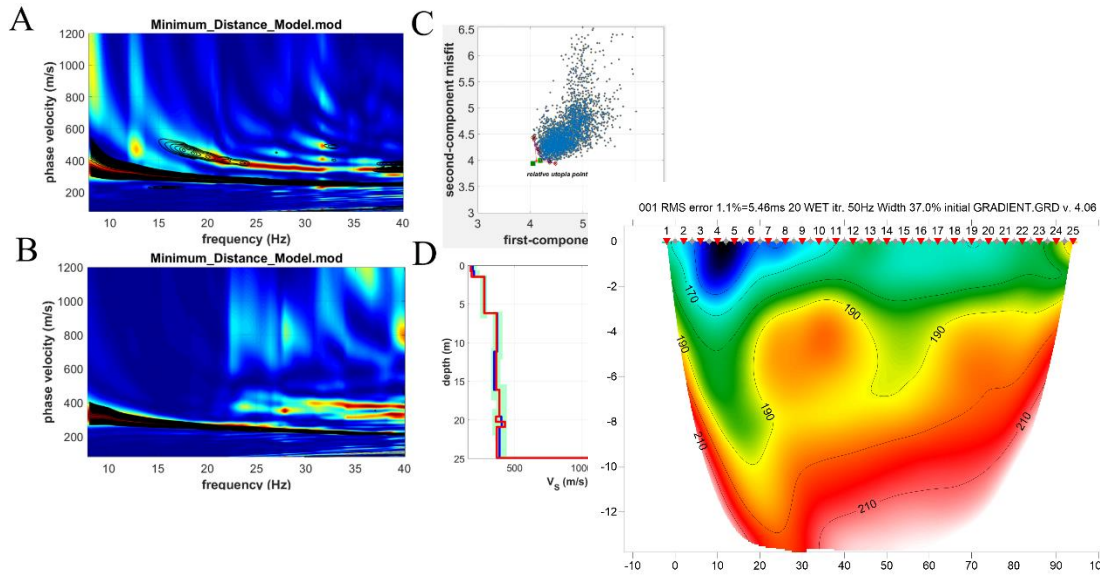
Seismic survey (P-wave tomography, MASW)



Seismological monitoring



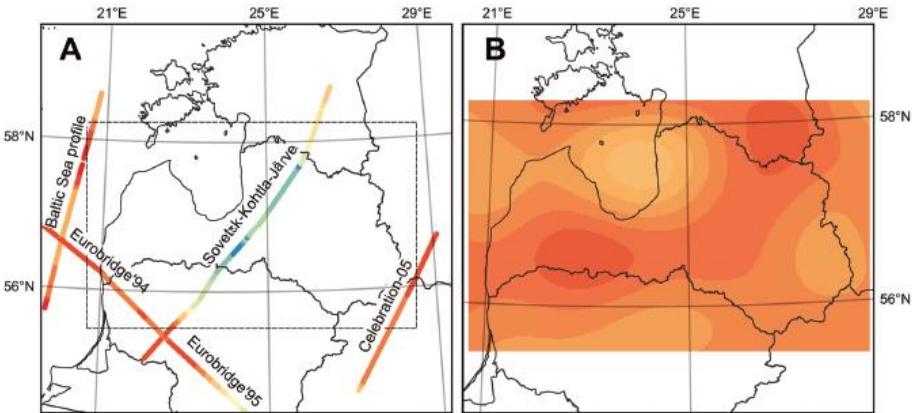
Geode-24 (geometrix)



Some research results

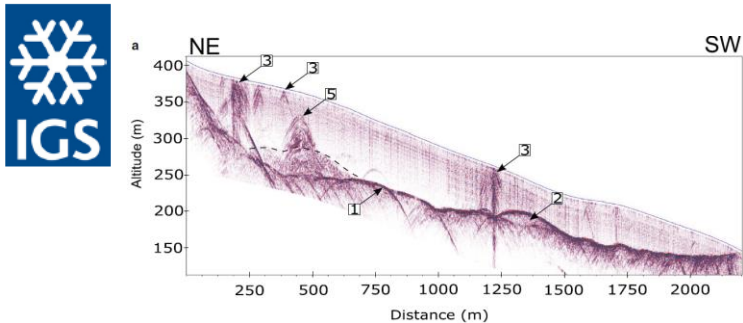
Estonian Journal of Earth Sciences, 2020, 69, 4, 177–188

Gravity-derived Moho map for Latvia



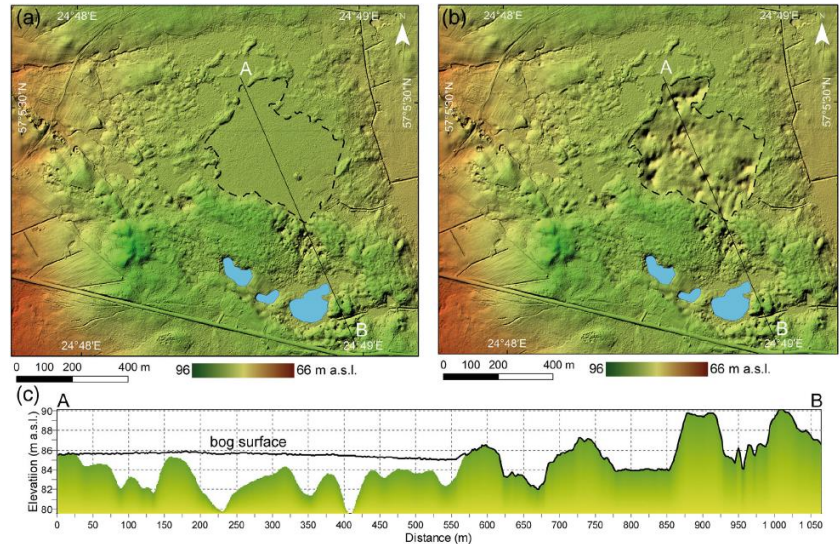
Drainage system and thermal structure of a High Arctic polythermal glacier: Waldemarbreen, western Svalbard

Journal of Glaciology

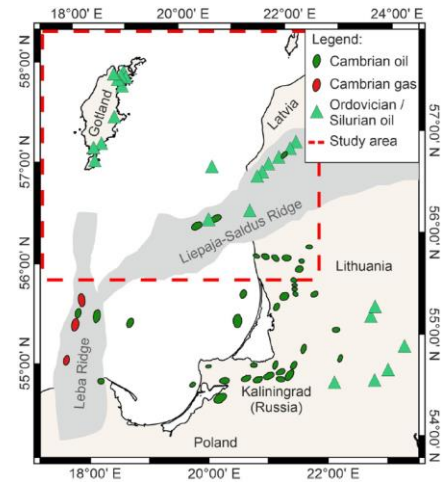


Earth Surf. Process. Landforms. 2023;1–17.

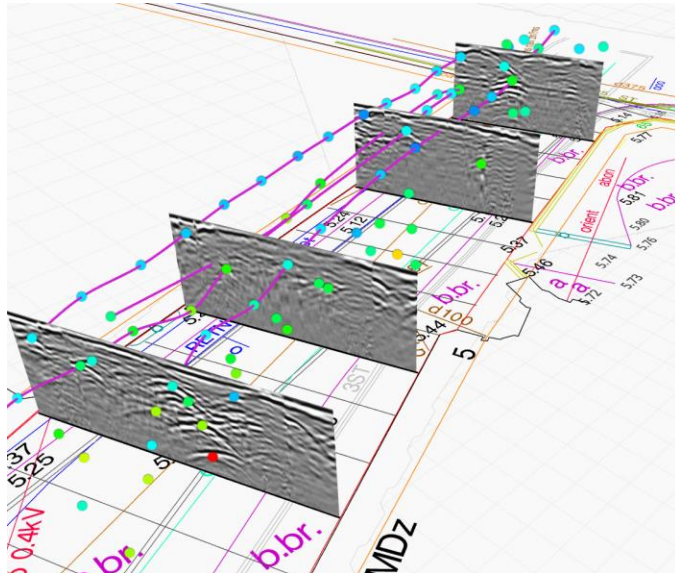
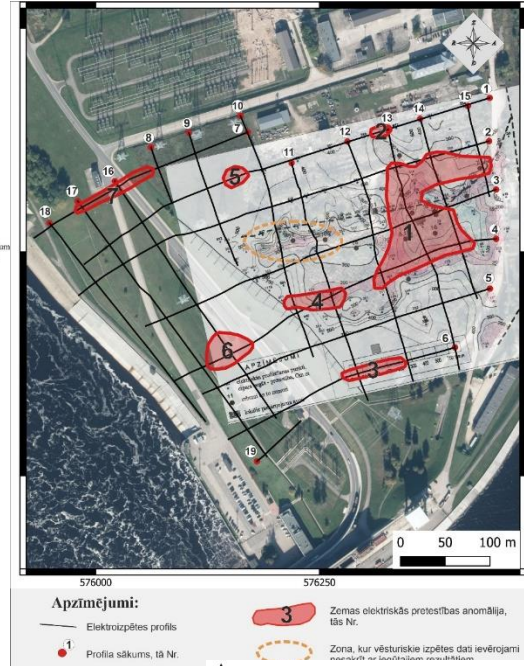
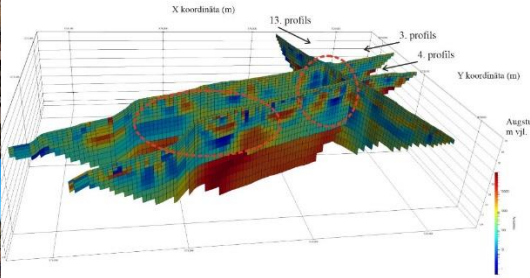
Investigation of buried karst sinkholes under a bog using ground penetrating radar (GPR) and electrical resistivity tomography (ERT)



Earth and Space Science The Paleozoic Hydrocarbon System in the Gotland Basin (Central Baltic Sea) Leaks

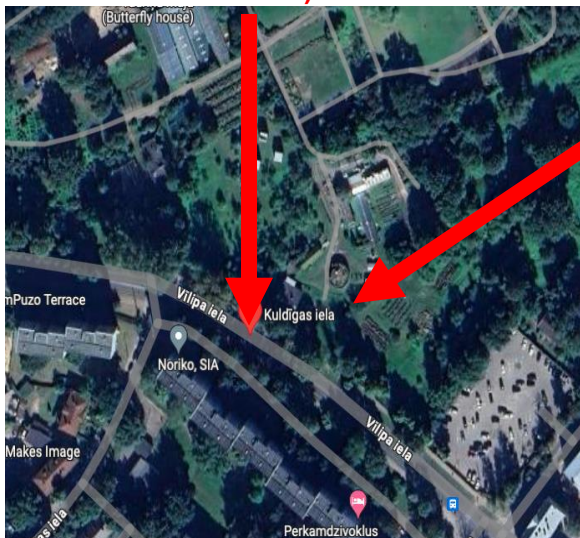


Innovation and knowledge commercialisation



Innovation and knowledge commercialisation

Autobusu pietura (~150 metru attālumā)

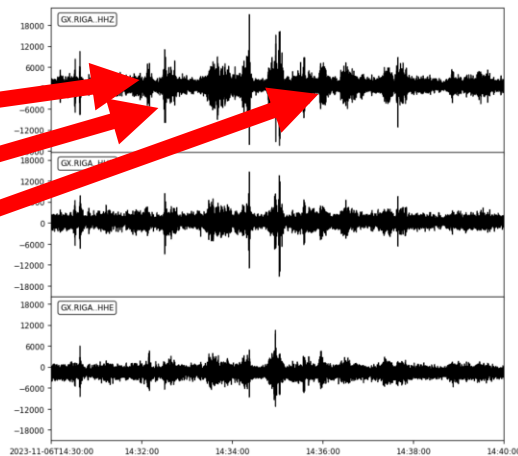


Uzstādītais seismogrāfs



4	Piņķi	from Abrenes iela
25	Iļģuciems	from Brīvības iela
9	Iļģuciems	from Stacijas laukums
21	Imanta	from Jugla
46	Zolitūde	from Ziepniekkalna D/P
25	Iļģuciems	from Brīvības iela

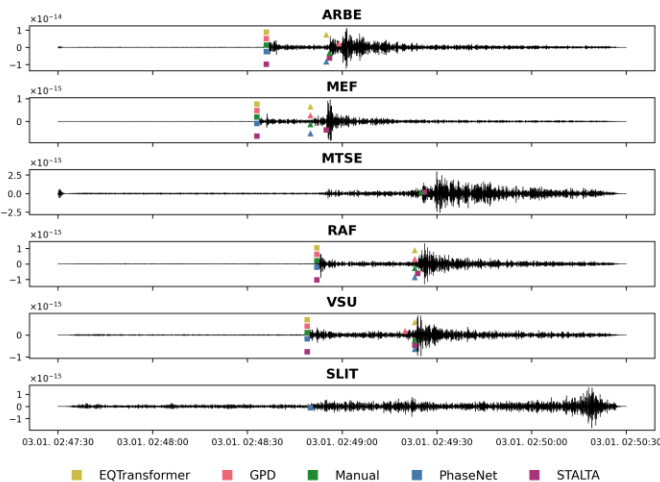
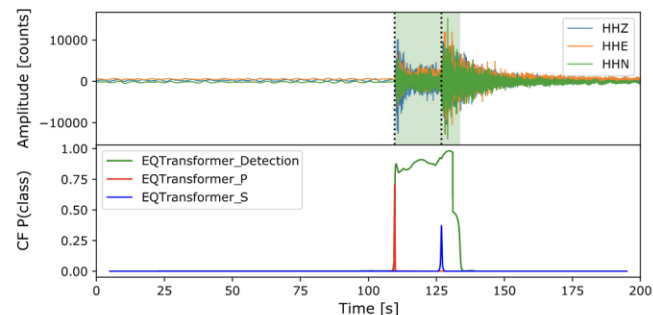
5 min 16:32
5 min 16:32
9 min 16:36
13 min 16:40
15 min 16:42
15 min 16:42



Piemērs no pagaidu stacijas seismogrāfa testiem Rīgā, Botāniskajā dārzā, kur vibrāciju mērījumos varēja izsekot autobusu sarakstu. Pārējie trokšņi saistīti ar autotransporta kustību

```
[2]: from seisbench.models import EQTransformer
```

```
# Load pre-trained weights into model  
eqt_model = EQTransformer.from_pretrained("original")  
  
# Apply EQT to stream  
eqt_annotations = eqt_model.annotate(st)  
eqt_picks = eqt_model.classify(st)
```



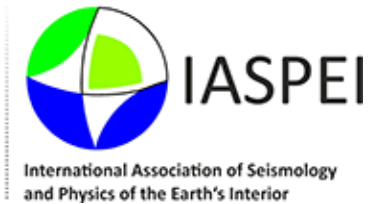
Pētījumi ar mākslīgā intelekta rīkiem automātiskai kustību noteikšanai

Partners



International activities

International Union of Geodesy
and Geophysics (IUGG)



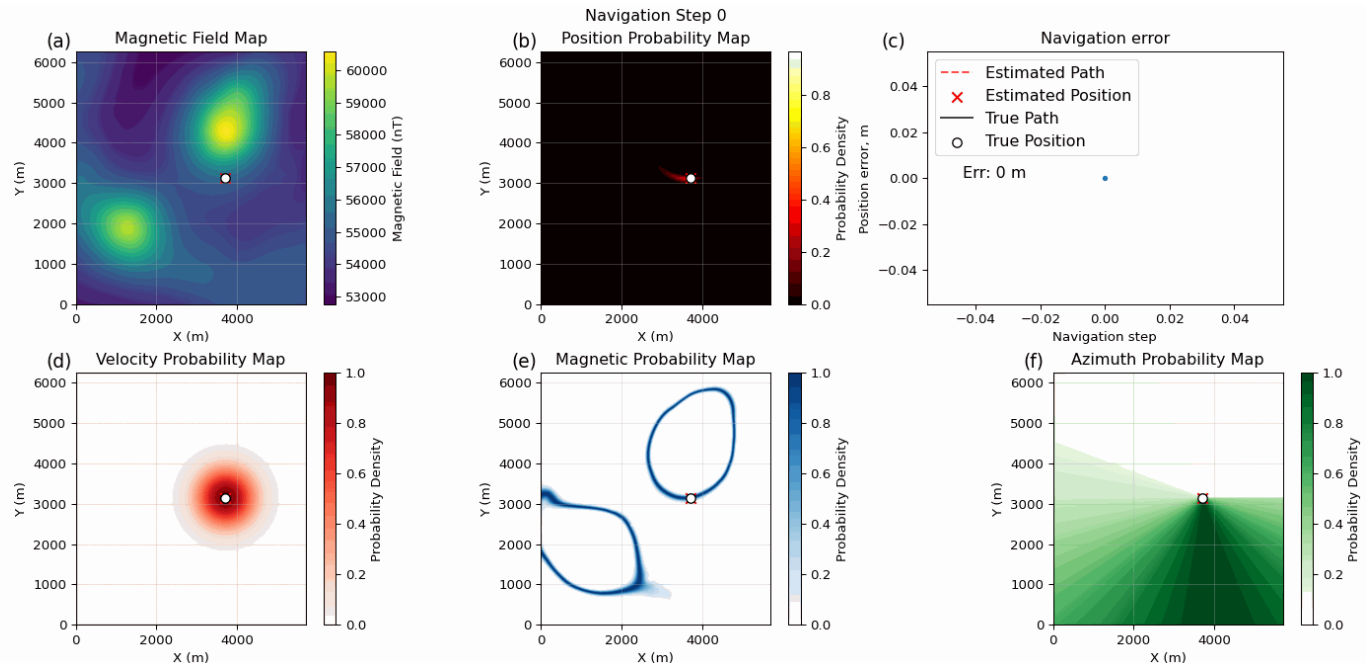
Technical Committee LVS/STK 30 “*Construction*”,
Standardization Technical Subcommittee LVS/STK30/AK2 “*Geotechnics*”

ISO/TC 182 «Geotechnics»: main working groups:

ISO/TC182/WG12 “*Standardization in geophysics*”

ISO/TC 182/WG 04 “*Drilling and sampling methods and groundwater measurements*”

ISO/TC 319 “*Karst*”



Paldies par uzmanību