

Mauro Palomba: 3D Model Lambronecca (see on Sketchfab)

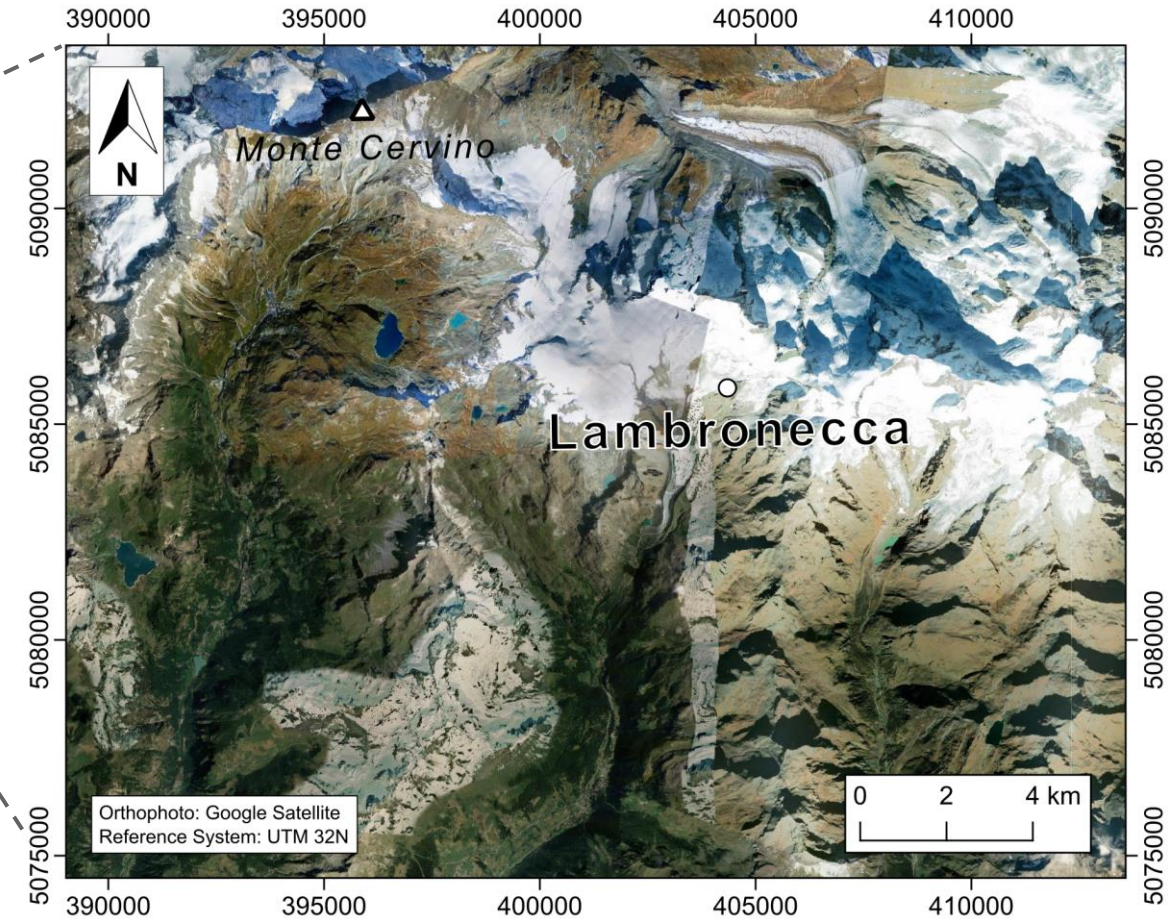
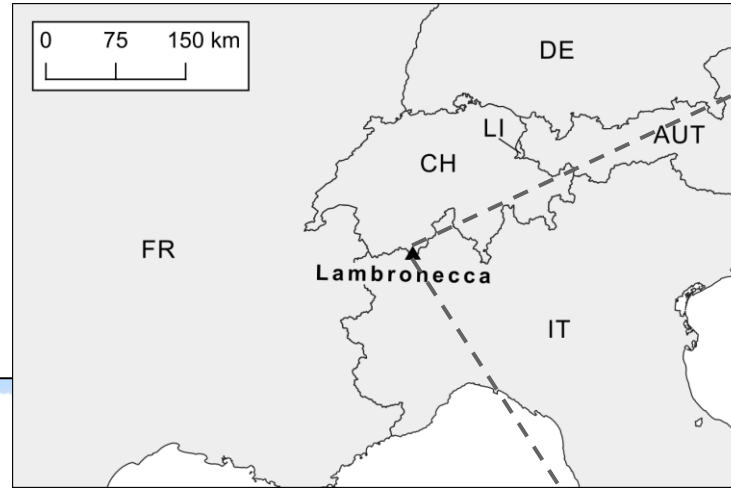
Guide Val d'Ayas al Lambronecca

... a thawing permafrost endangered hut

EGU 2022

May 25th, 2022

Clemens Moser, Theresa Maierhofer,
Elisabetta Drigo, Umberto Morra di Cella,
Christian Hauck & Adrian Flores-Orozco



Study Area



Foto: Theresa Maierhofer 2020

Introduction (Relevance)

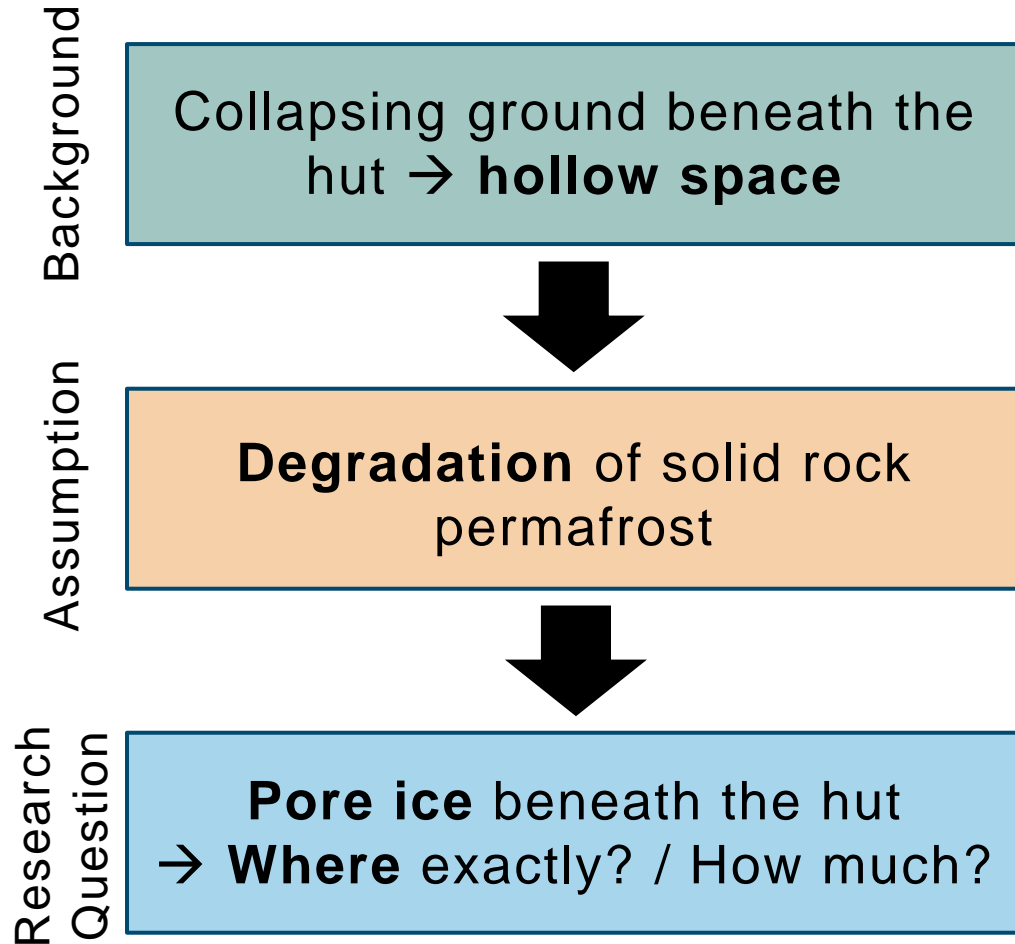
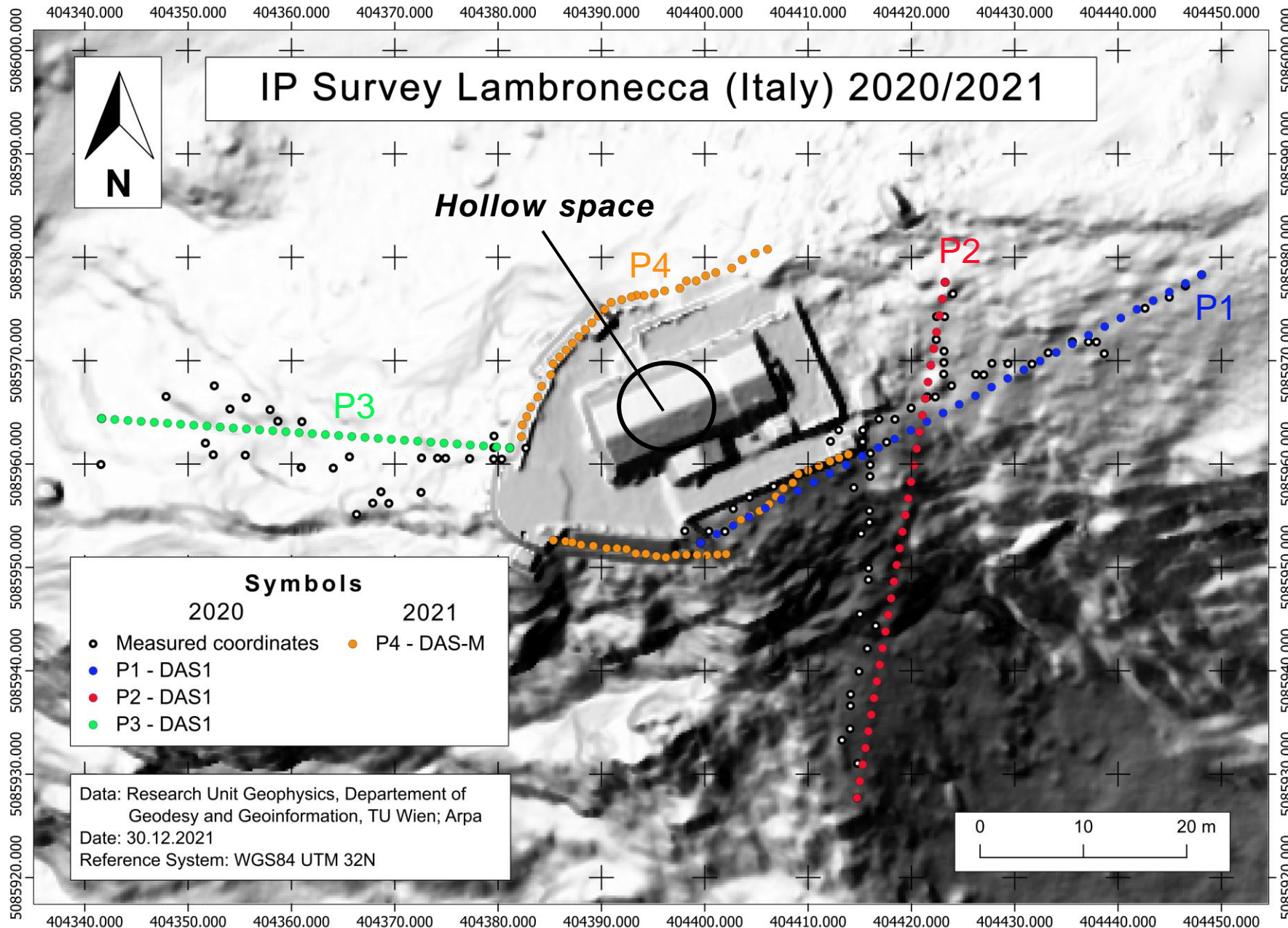
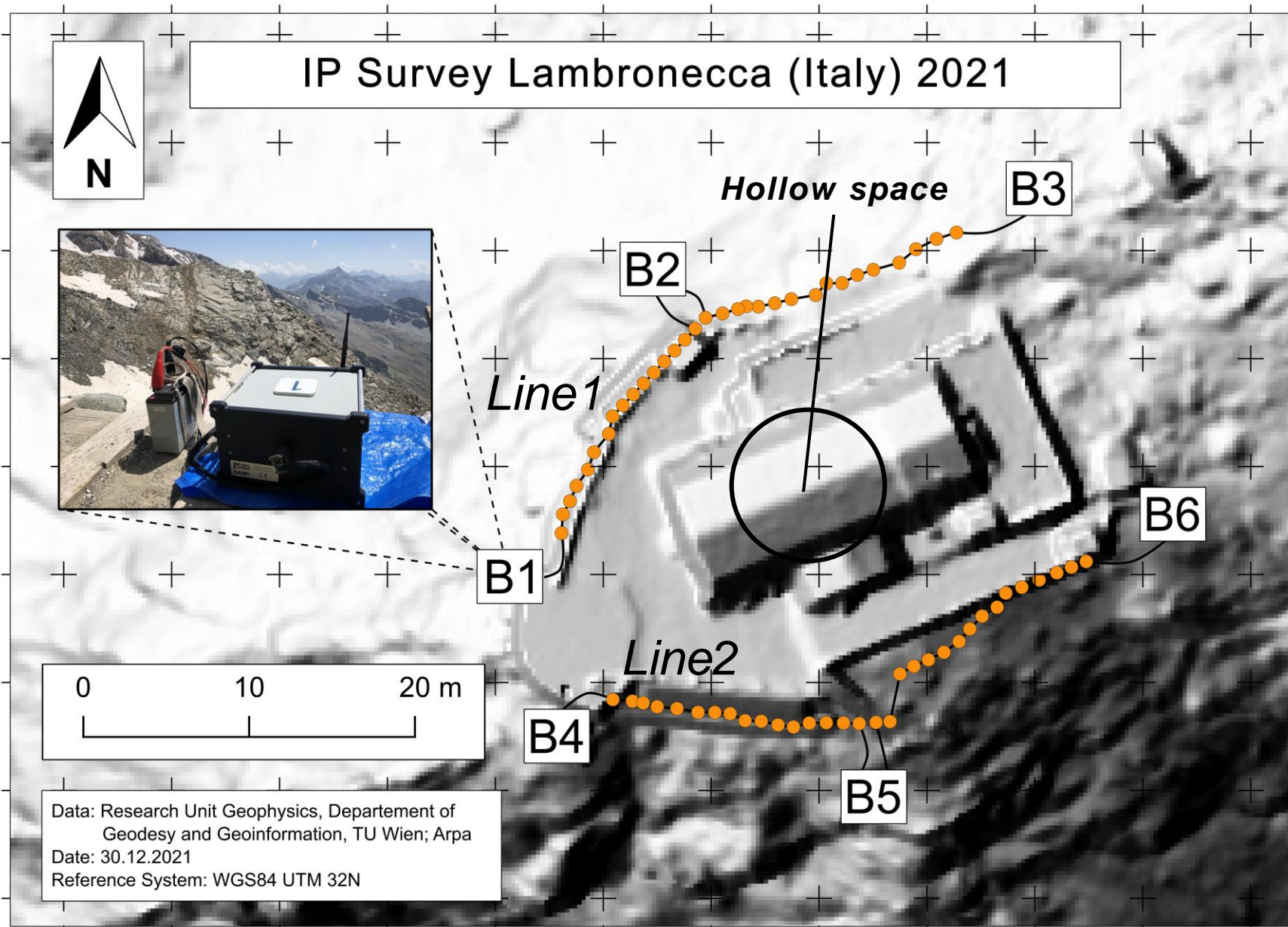


Foto: Theresa Maierhofer 2020

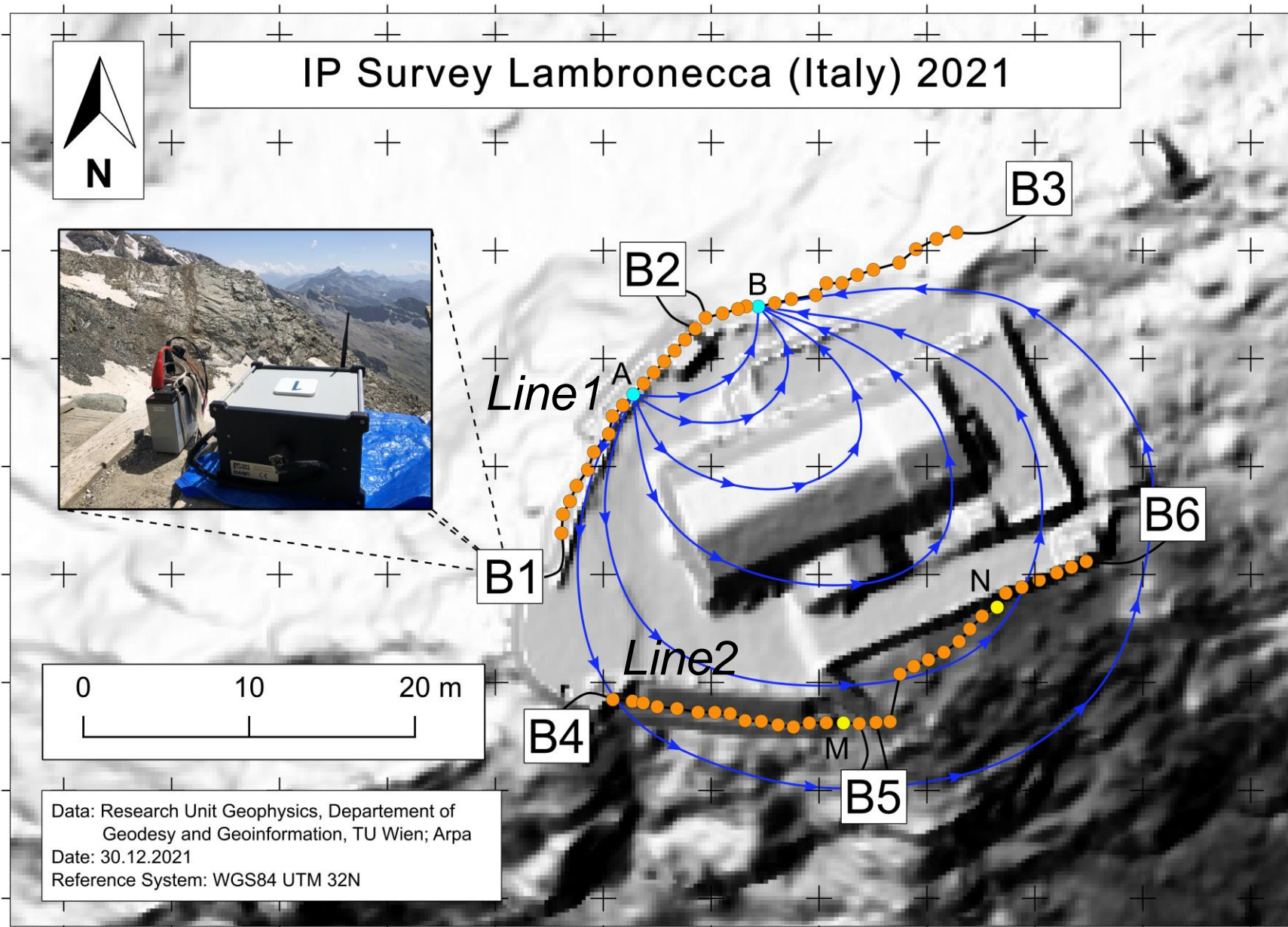
Measurement overview



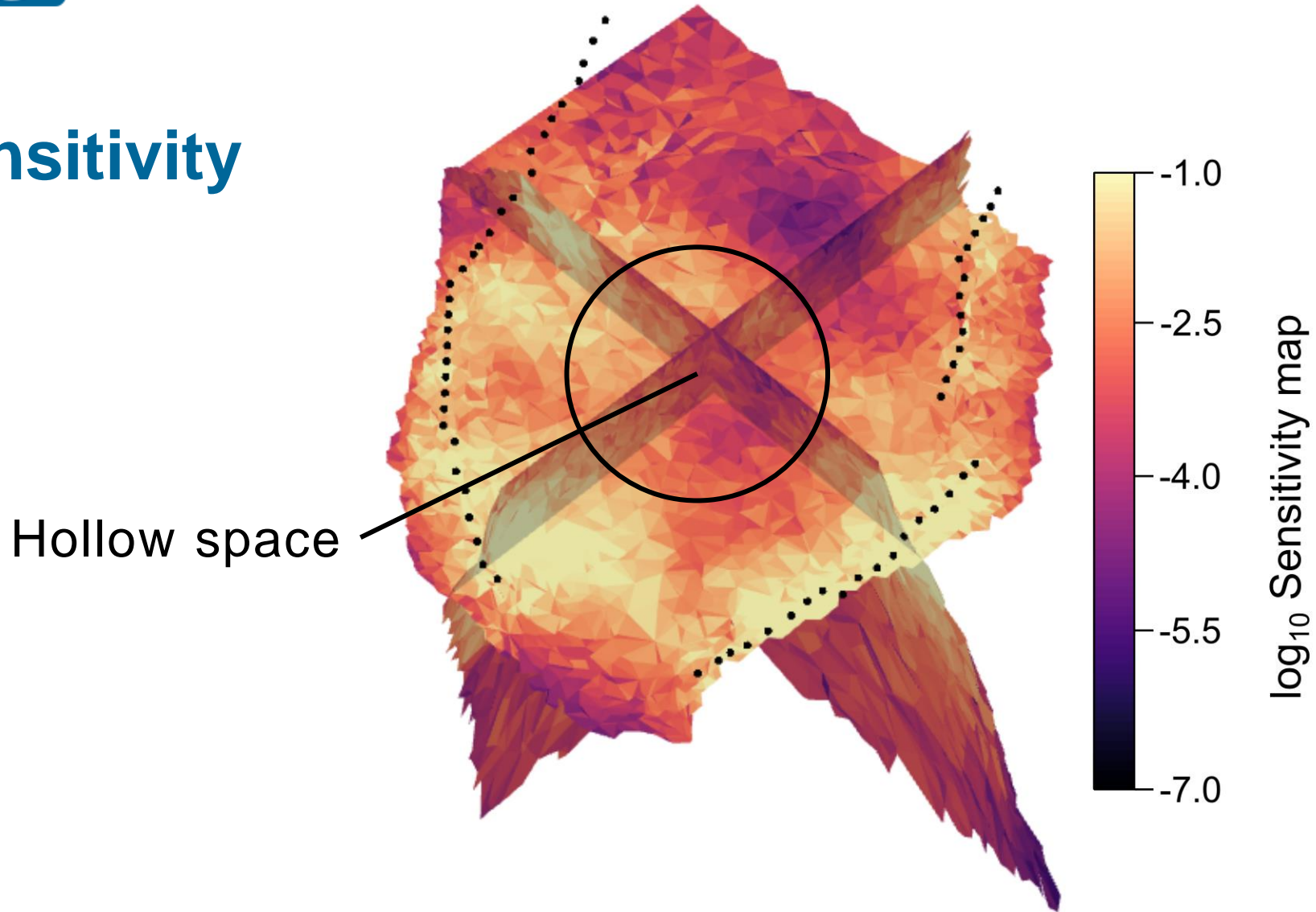
Measurement overview



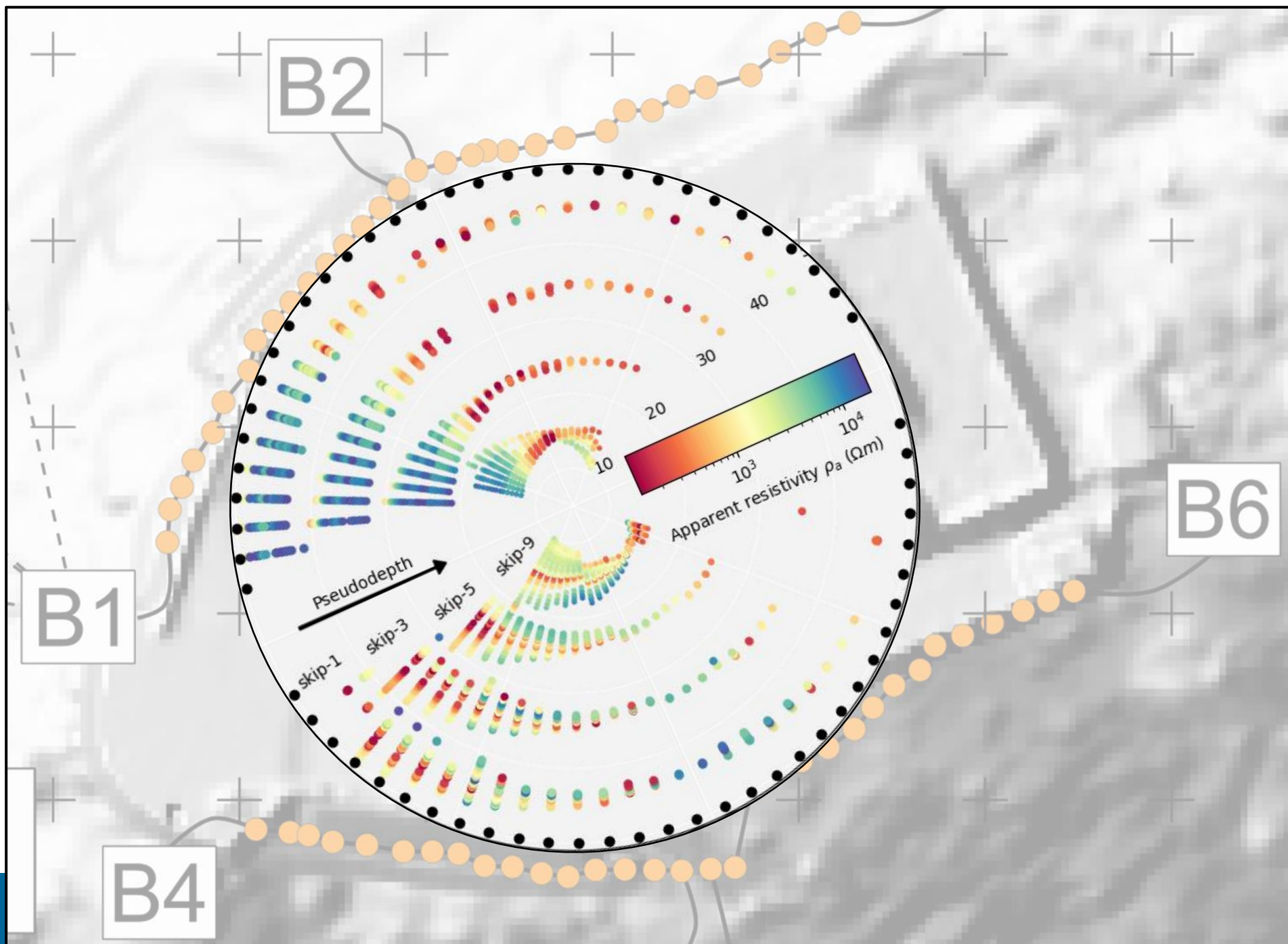
Measurement overview



Sensitivity

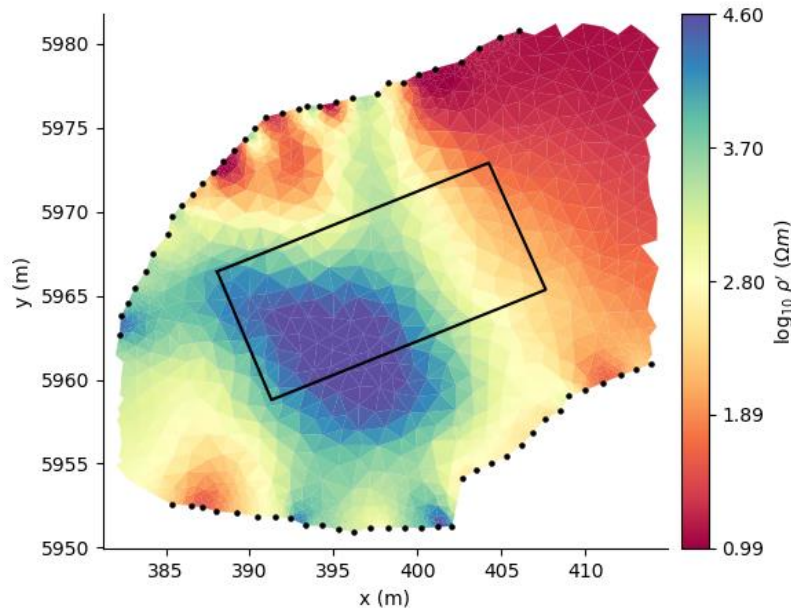


Pseudosection (1 Hz)

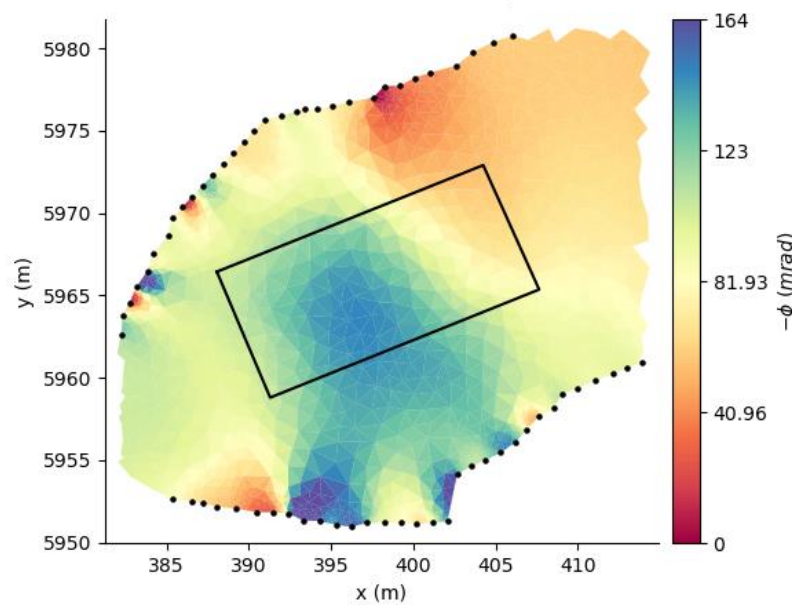


2D Inversion results (15 Hz) Induced Polarization

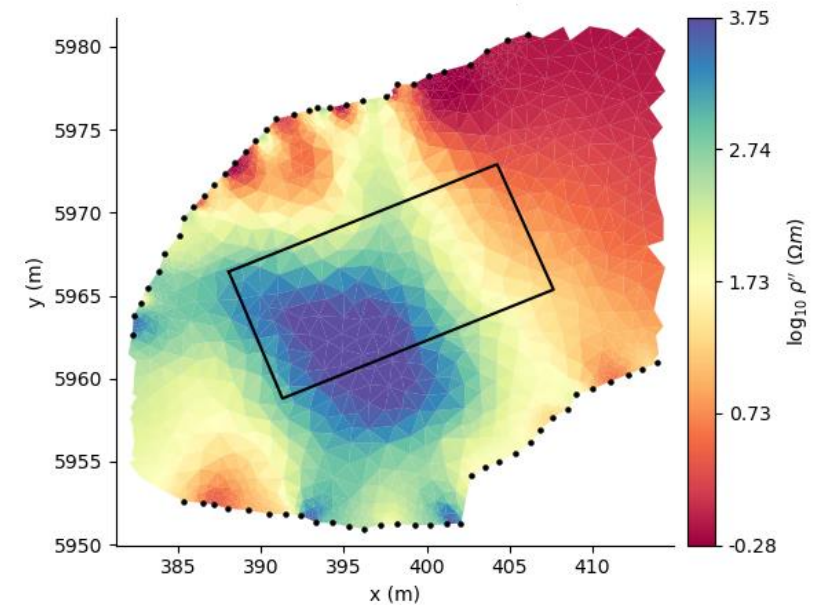
Resistivity (ρ')



Phase shift ($-\phi$)



Polarization (ρ'')



Complex Resistivity (CR):

$$\rho^* = \rho' - i\rho'' = |\rho^*|e^{i\phi}$$

- Real part ρ' : Resistivity $\sim |\rho^*|$
- Imaginary part ρ'' : Polarization
- Phase shift ϕ : $\sim -\rho''/\rho'$

Further information: Maierhofer et al. 2022

3D Inversion results (1 Hz) Resistivity

