An investigation of the XXXX site

By Patryk Drozd

Small about me

Irish

BSc Theoretical Physics and Maths

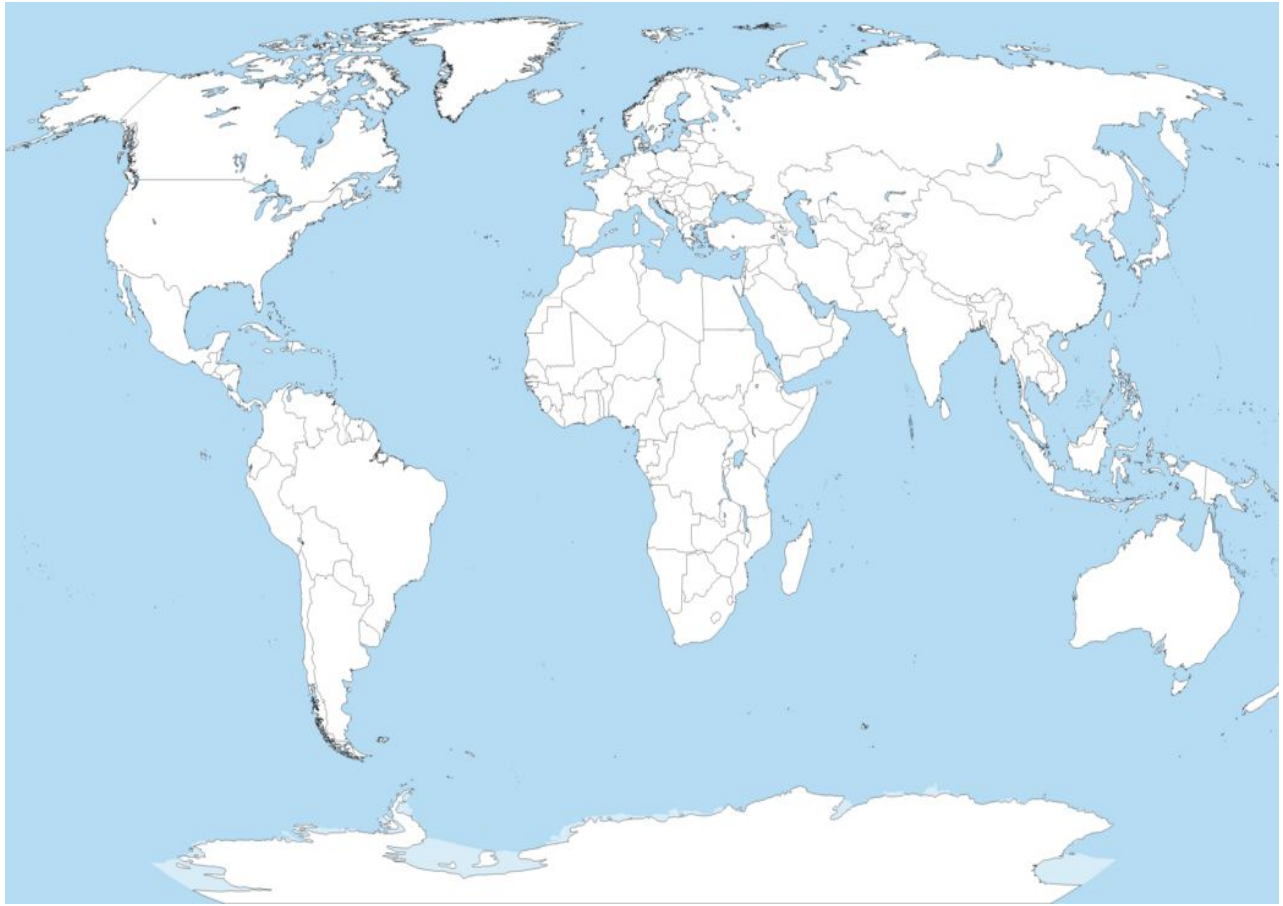
Going to do MSc in High Performance Computing

Got this internship as part of the DAAD RISE Professional programme

Main objective of my work

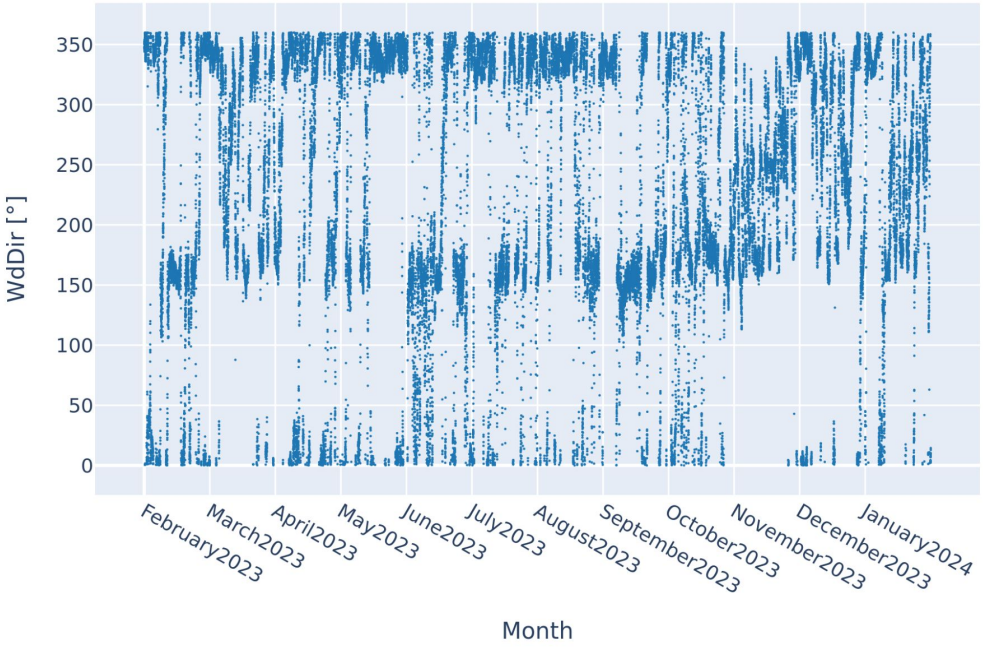
To create a benchmarking tool for the XXXX site.

Somewhere in the world
but I can’t say where.

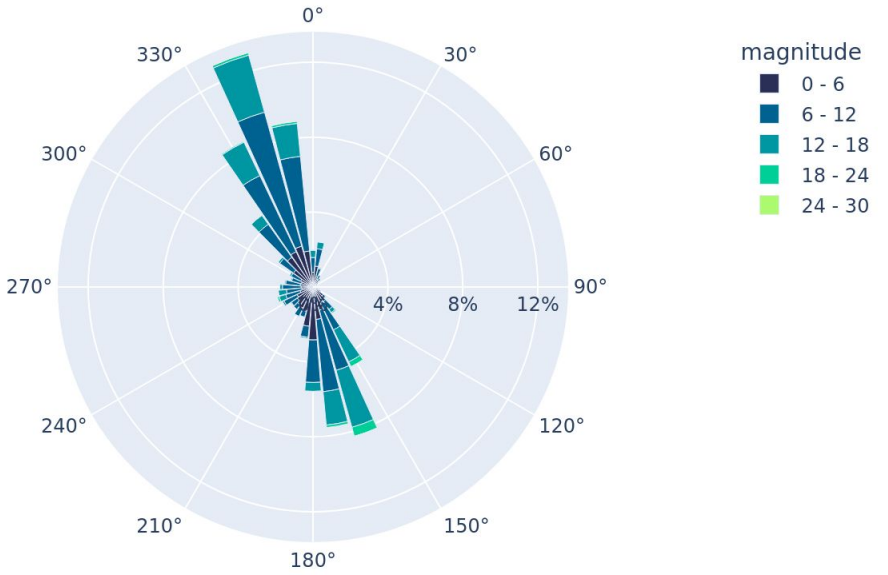


Wind direction

Change in wind direction over the time of a year for XXXX MET mast at height of XXXXm.

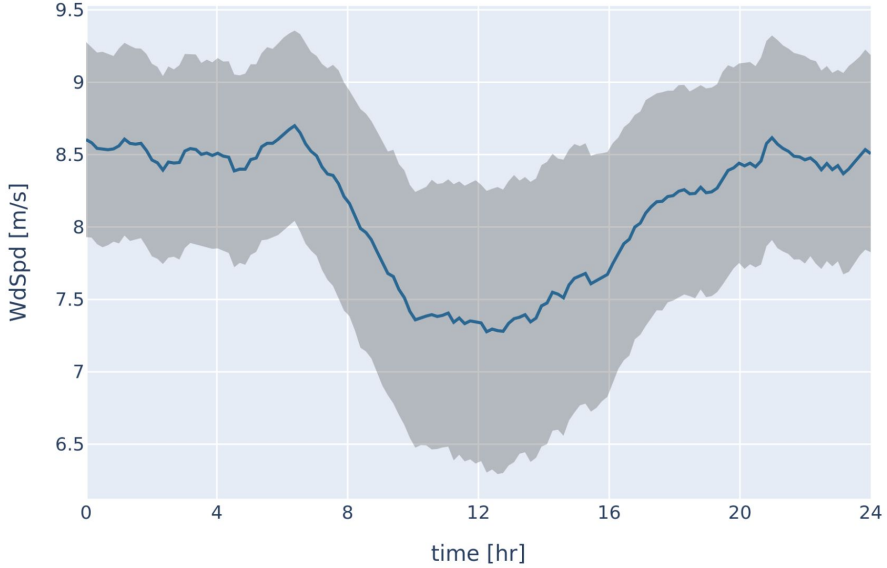


Wind rose for XXXX MET mast at height of XXXXm.

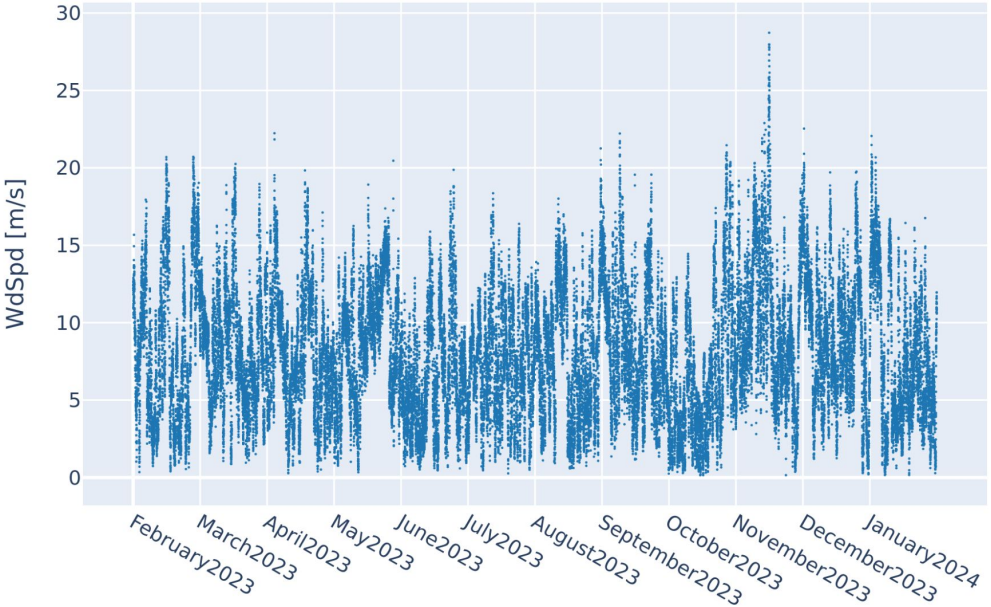


Wind speed

The wind speed in an average day at XXXX MET mast at XXXXm.

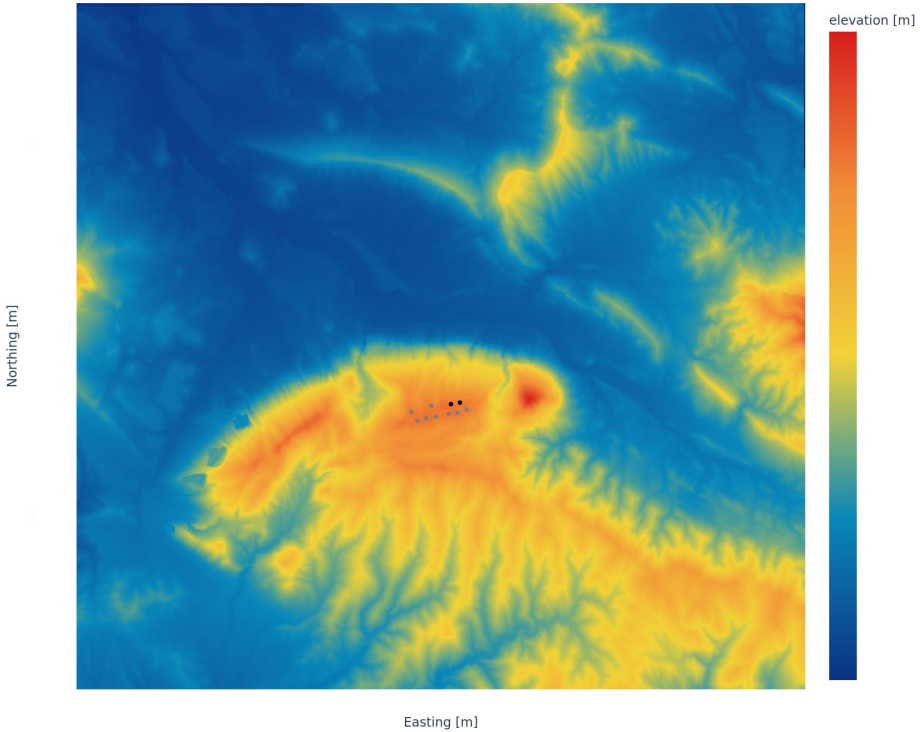


The wind speed over the span of a year at XXXX MET mast at XXXXm.



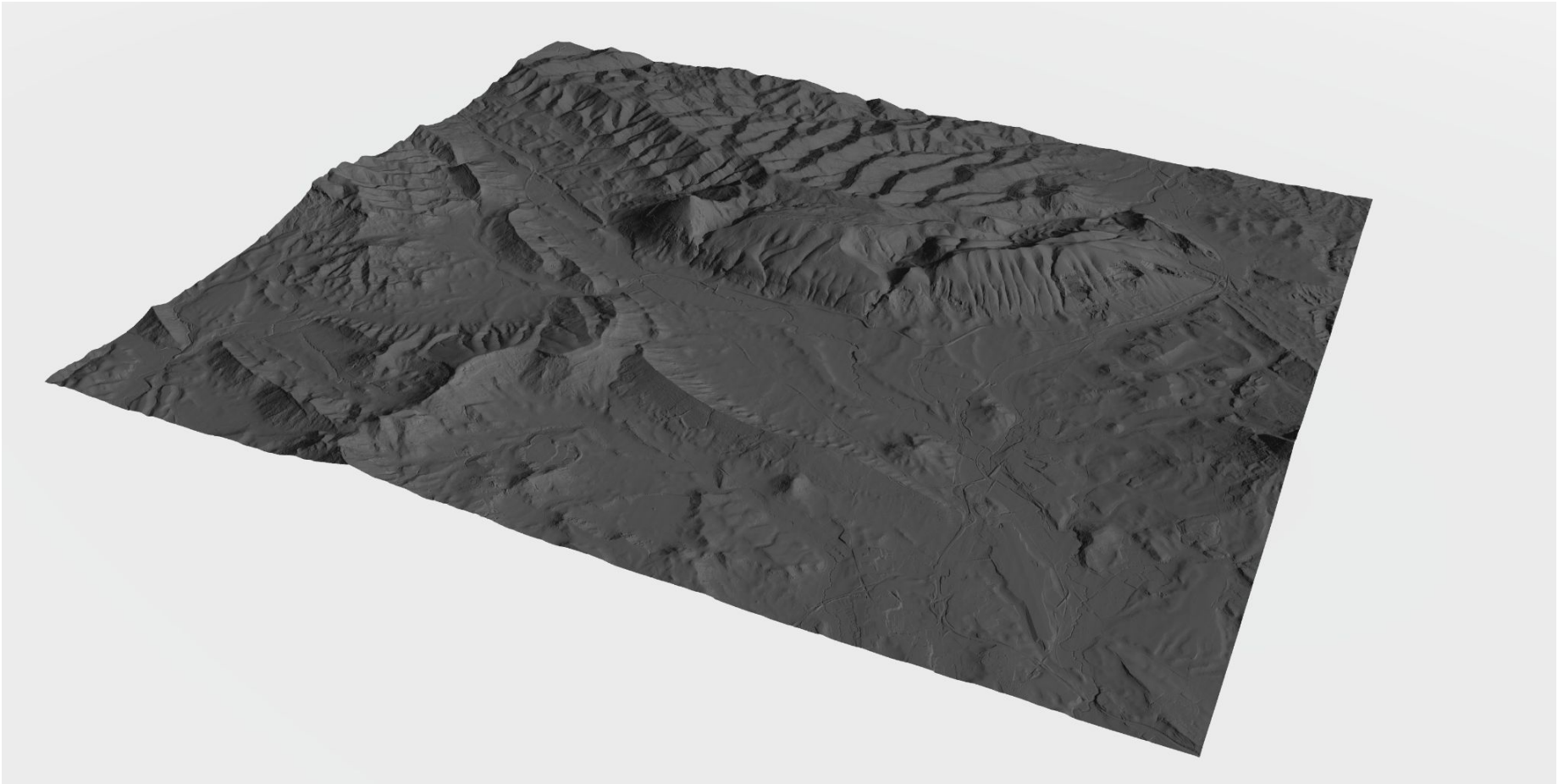
Terrain

Heatmap of DTM(x, y) (digital terrain model)



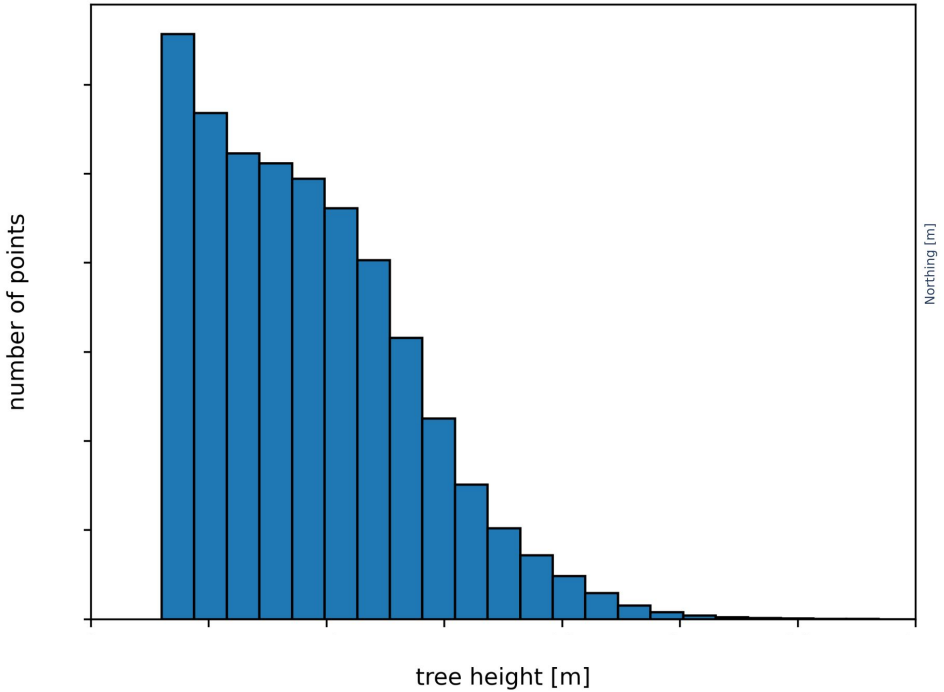
The dots in the middle of the figure
are MET masts and wind turbines

Rendered .stl model for visualization purposes

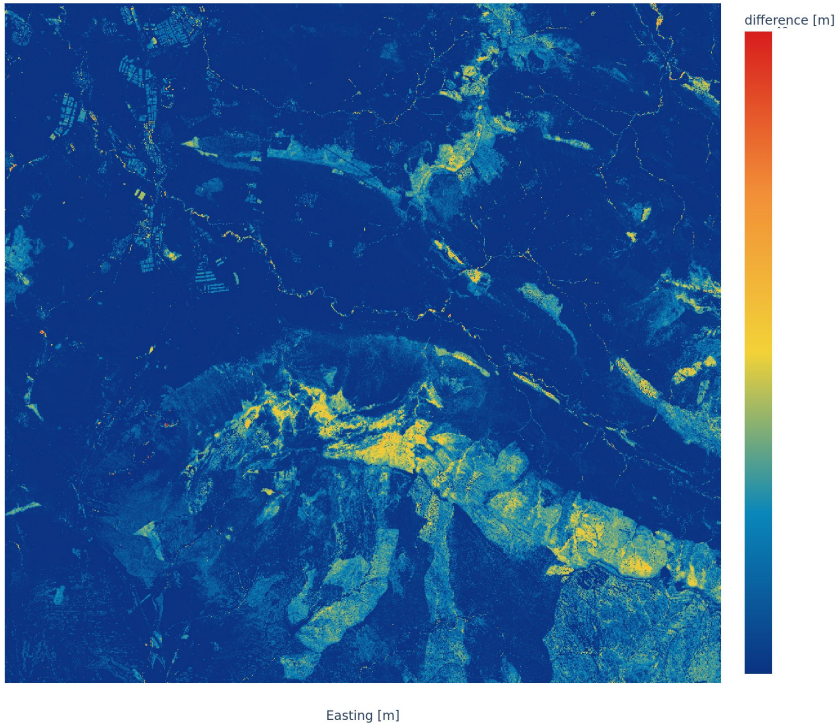


Roughness

Distribution of heights (exculting heights < XXXXm)

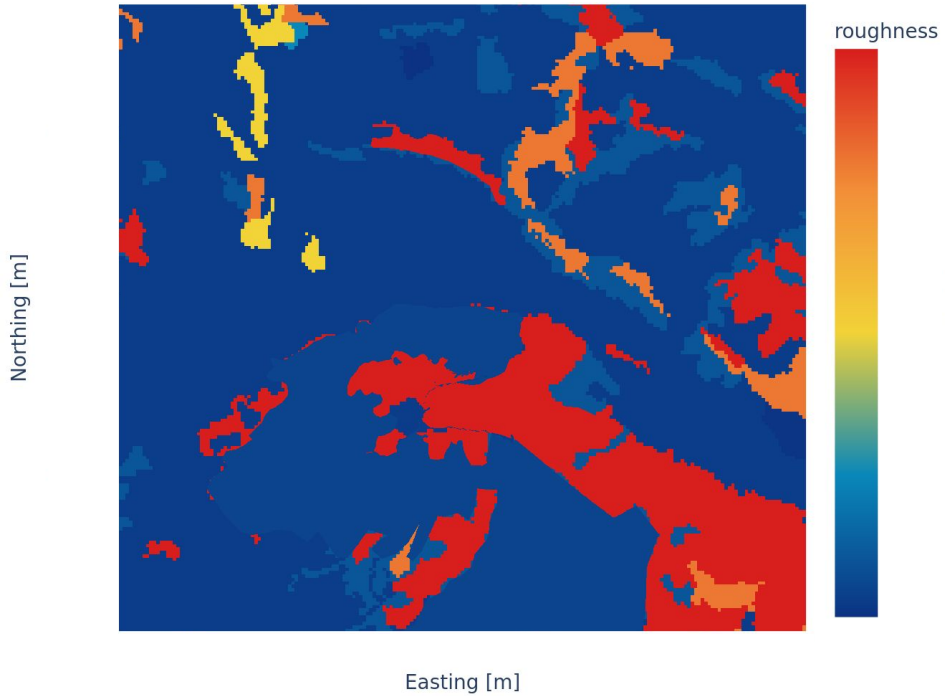


DSM(x, y) - DTM(x, y)

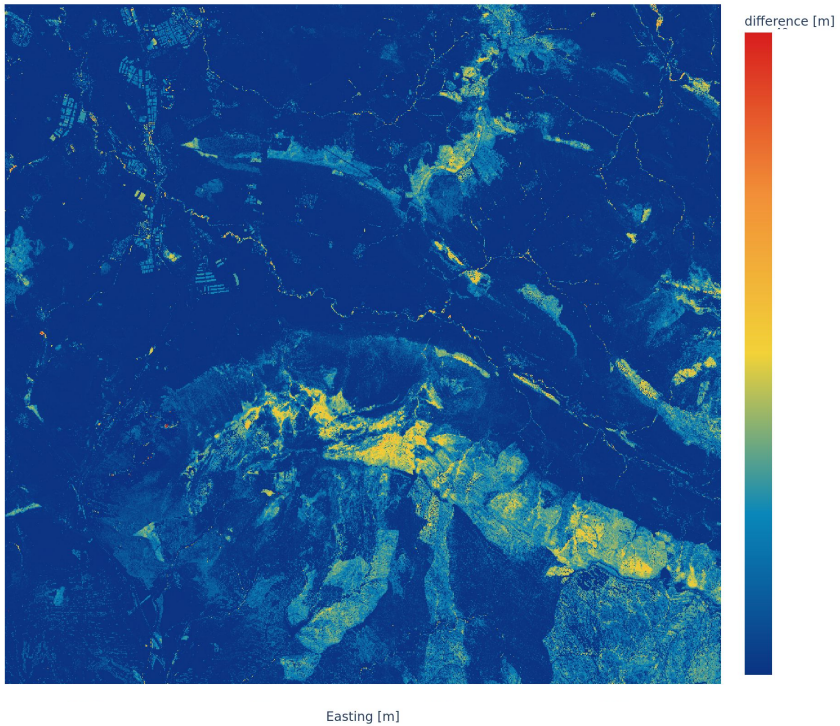


Roughness

Roughness data

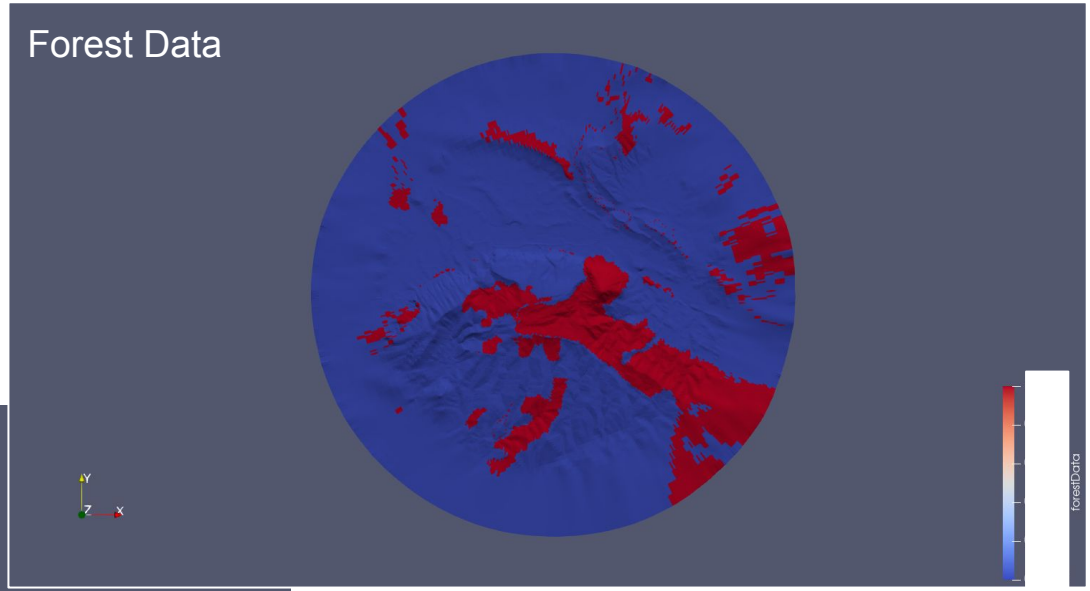


DSM(x, y) - DTM(x, y)

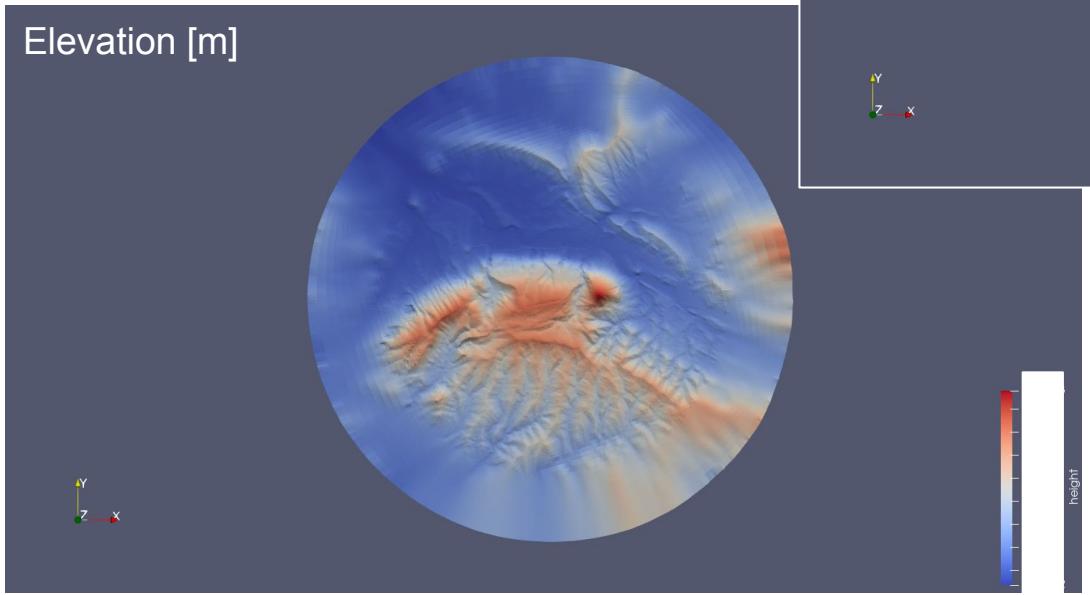


Meshing

Using XXXX TerrainMesher

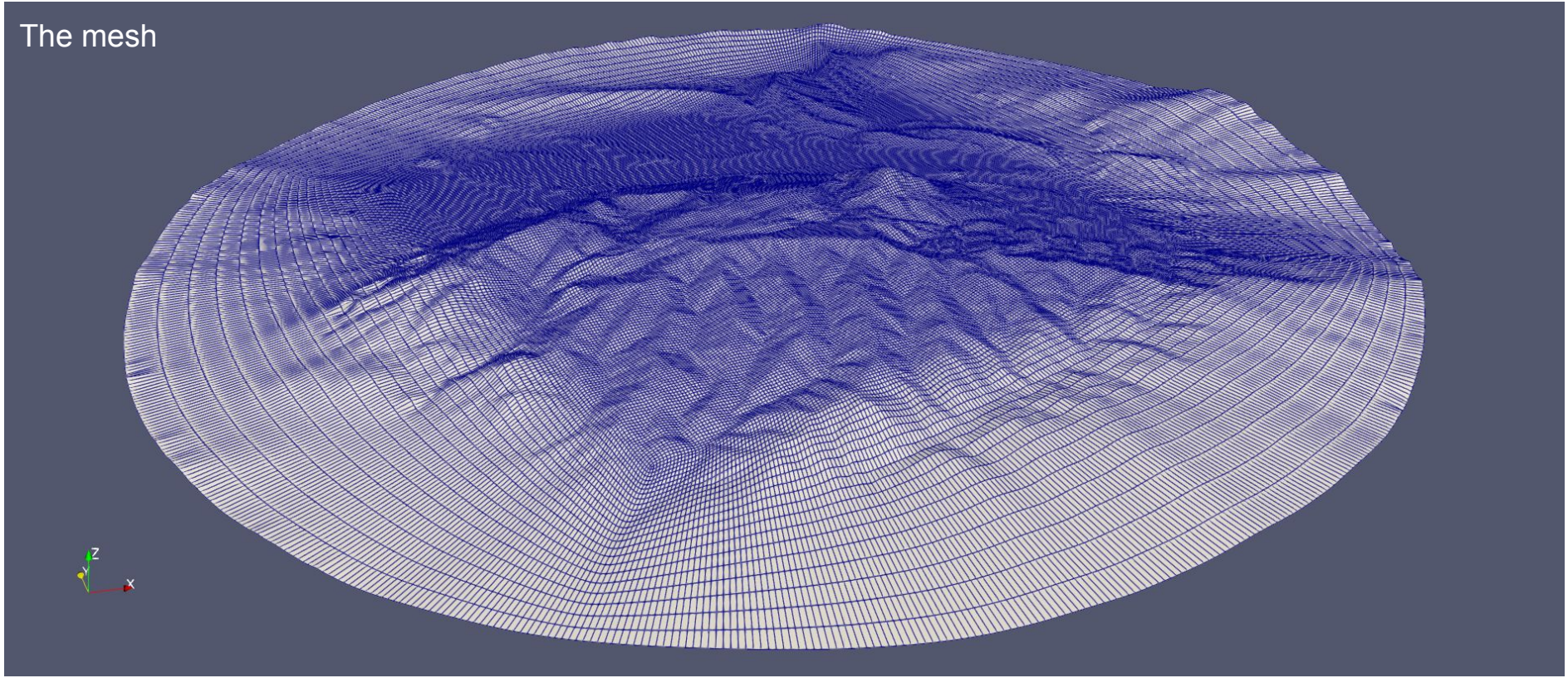


Tells us where to place forests



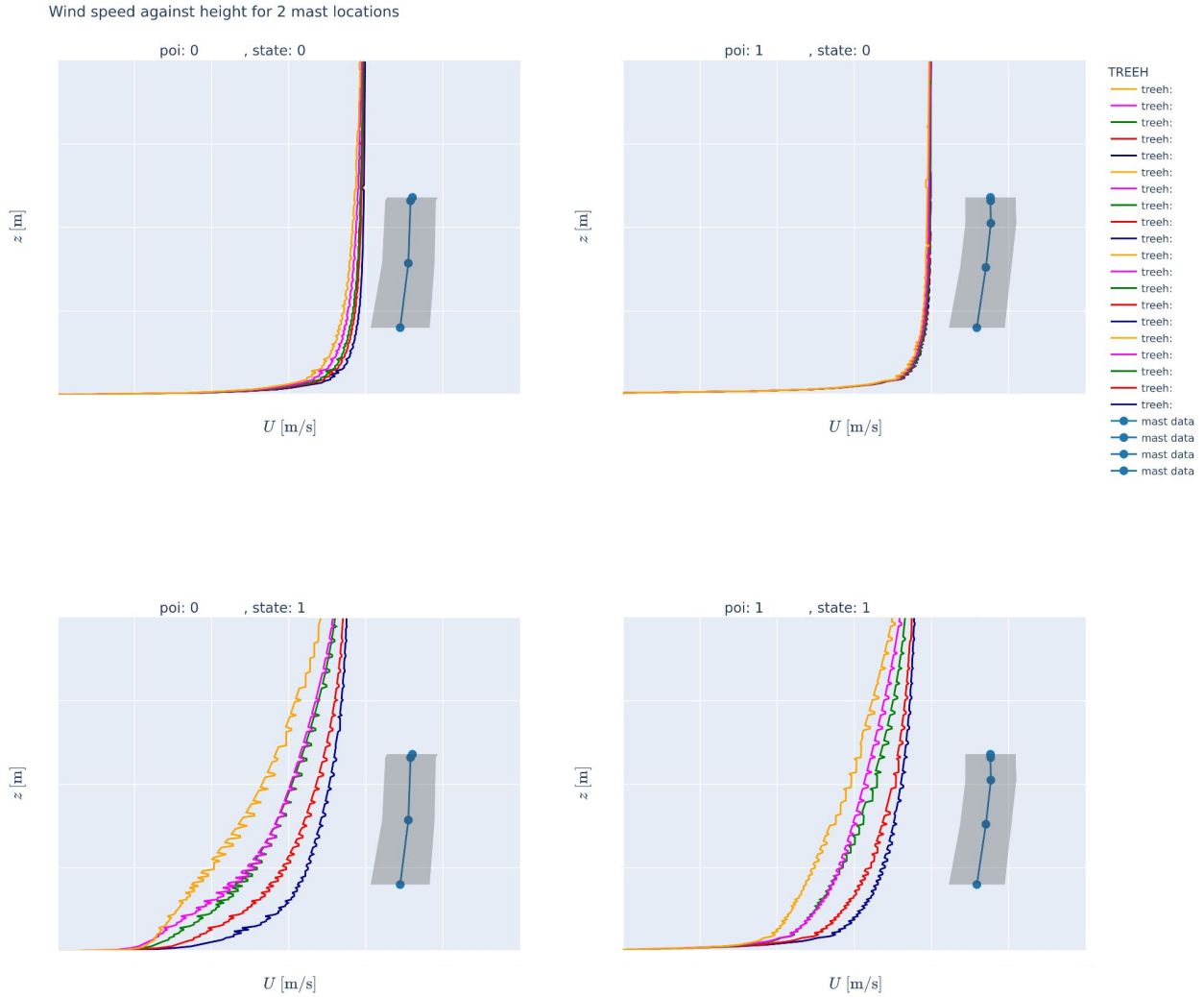
Meshing

Using XXXX TerrainMesher



XXXX simulations

- RANS for simulations
- Mast data averaged over time



Thank you!