# **NEST Conference 2025**



Contribution ID: 13 Contribution code: W-2

Type: Workshop

# Power Spectral Analysis of NEST Simulation Using Neo and Elephant

Tuesday 17 June 2025 13:45 (1h 30m)

In this introductory level tutorial we will introduce participants to analyzing electrophysiological data from a neural network simulation using the tools Neo (https://neuralensemble.org/neo) for representing and handling the data and Elephant (https://python-elephant.org) for performing the actual analysis. We will cover the basic Neo data objects and how to load simulation outcomes into the framework. We then focus the analysis on obtaining and contrasting power spectral density estimates from spike train data using multiple approaches. For the tutorial, participants will be able to execute tutorials on their laptops with minimal installation effort using the EBRAINS Collaboratory.

## Acknowledgements

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# References

## Preferred form of presentation

Workshop

#### **Topic** area

Interoperability, data and infrastructure

#### Keywords

data analysis, data models, spectral analysis

#### Speaker time zone

UTC+2

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