Contribution ID: **19** Contribution code: **P1-3** Type: **Poster & advertisement flash talk**

# NEST Desktop: Explore new frontiers

*Thursday 23 June 2022 14:16 (3 minutes)*

NEST Desktop [1] is a web-based graphical user interface (GUI) which comprises graphical elements for creating and configuring network models, running simulations in the NEST simulator, and visualizing and analyzing the results. It allows students to explore important concepts in computational neuroscience without the need to learn a simulator control language before hand.

NEST Desktop separates the GUI from the simulation kernel, but it still needs a NEST Simulator on the user' s machine. Since the last release NEST Desktop is able to connect to the in-situ pipeline "Insite"[2], which allows to visualize data sets from an ongoing NEST simulation. This enhances the interactivity of NEST for large simulations on HPC facilities. Furthermore, it enables a parallel usage with ViSimpl [3] for better visualization of spatial networks or with the NeuroRobotics Platform [3] to perform experiments on (virtual) robots.

In order to give students, teachers, and researchers installation-free access to the compute resources, we integrated NEST Desktop into the EBRAINS infrastructure [5]. The same code remains available as a standalone version of NEST Desktop for applications in teaching and training and installations at other sites.

## Acknowledgements

This project has received funding from the European Union's Horizon 2020 Framework Programme for Research and Innovation under Specific Grant Agreement No. 785907 (Human Brain Project SGA2) and 945539 (Human Brain Project SGA3) and the Helmholtz Association Initiative and Networking Fund under project number SO-092 (Advanced Computing Architectures, ACA).

## Preferred form of presentation

Talk & (optional) poster

## Topic area

models and applications

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## References

1. Documentation [ https://nest-desktop.readthedocs.io ]

2. Insite [ https://vrgrouprwth.github.io/insite/ ]
3. ViSimpl [ https://vg-lab.es/visimpl/ ]
4. NeuroRobotics Platform [ https://neurorobotics.net ]
5. EBRAINS Simulation Service [ https://ebrains.eu/service/nest-desktop ]

## Speaker time zone

UTC+2

## Keywords

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**Session Classification:** Poster

**Track Classification:** Main track