Python data analysis for GATE simulations

OBJECTIVES
- Master the basic Python functions and mastering principal libraries (Matplotlib, NumPy, Pandas)
- Master Python for the management of ASCII, ROOT and IMAGE outputs
- Master Python for image conversion and merging
- Master cluster computing

AUDIENCE
Researchers, PhD students, Post-Docs, engineers and technicians willing to improve and enhance data analysis for GATE simulations

Attendees are invited to download and fill out the survey HERE as soon as possible to adapt the programme to their expectations.

PRE-REQUIREMENT
Know how to use the GATE platform

TRAINING PROGRAMME
- Introduction to Python
- NumPy, Matplotlib
- Monte Carlo exercises
- GATE ASCII output analysis
- Python analysis for PET and SPECT applications using NumPy
- NumPy to Pandas analysis
- Python analysis for radiation therapy applications
- Python analysis for optical photons applications
- GATE image output analysis
- Image conversion + merging
- Cluster computing
- Dask

Detailed programme available from our web site.

Lectures (5 hours) and hands on (15 hours)

Social event will be organized on wednesday evening.

EQUIPMENT
Participants should attend the training with their laptop with the GATE virtual platform installed (vGATE 8.2)

SPEAKERS
M. Chauvin (Postdoctoral researcher), M. Dupont (engineer) and M.-A. Verdier (associate professor)

The training is organised in partnership with the GATE collaboration.