Python data analysis for GATE simulations

July 9-11 2019 - Computing Centre University Clermont Auvergne (France)

The training will be given on Jupyter Notebooks.

Maxime Chauvin - Inserm
Mathieu Dupont - CPPM
Marc-Antoine Verdier - IMNC

Tuesday July 9	Teacher
9:00 - 11:00 Introduction to Python	Marc-Antoine Verdier Course (30 min) Hands on (1:30)
11:00 -11:30 Coffee break	
11:30 - 12:30 NumPy, Matplotlib	Marc-Antoine Verdier Course (1:00)
12:30 - 13:30 Lunch break	
13:30 - 15:30 Monte Carlo exercises	M. Dupont + M-A Verdier + M. Chauvin Hands on
15:30 - 16:00 Coffee break	
16:00 - 18:00 GATE ASCII output analysis	M. Chauvin Course (30 min) Hands on (1:30)
Wednesday July 10	
9:00 - 11:00 Python analysis for PET and SPECT applications using NumPy	Mathieu Dupont Course (30 min) M. Dupont + M-A Verdier + M. Chauvin Hands on (1:30)
11:00 - 11:30 Coffee break	
11:30 - 12:30 NumPy to Pandas analysis	Mathieu Dupont - course (15 min) Hands on (45 min)
12:30 - 13:30 Lunch break	
13:30 - 15:30 Python analysis for radiation therapy applications - PhSp	Maxime Chauvin Course (30 min) Hands on (1:30)
15:30 - 16:00 Coffee break	

16:00 - 18:00 Python analysis for optical photons applications	Marc-Antoine Verdier Course (30 min) Hands on (1:30)
Social event	
Thursday July 11	
9:00 - 11:00 GATE image output analysis	Maxime Chauvin Course (30 min) Hands on (1:30)
11:00 - 11:30 Coffee break	
11:30 - 12:30 Image conversion + merging	Maxime Chauvin Hands on (1:00)
12:30 - 13:30 Lunch break	
13:30 - 16:00 Cluster computing - Dask	Mathieu Dupont Course (30 min) Hands on (2:00)
16:00 End of the training	