

# Photon and Neutron (PaN) E-learning platform

## PaN-learning.org



### PaN-learning

The EU-funded e-learning platform where lecturers and beamline scientists can provide training to students and researchers on:

- Theory of PaN science.
- How instruments work.
- Data Reduction.
- Data Analysis



### Moodle platform

PaN-learning runs the popular moodle platform used by many universities throughout the world. You can:

- Track your students.
- Upload **video** or **written** material.
- Embed external content.
- Add interactive **quizzes** or **H5P** content.



### Simple log on

We are working towards making account creation as simple as possible

- Create an account with **UmbrellaID**.
- Log in with **ORCID**.
- You can also request an account by filling in an online form.

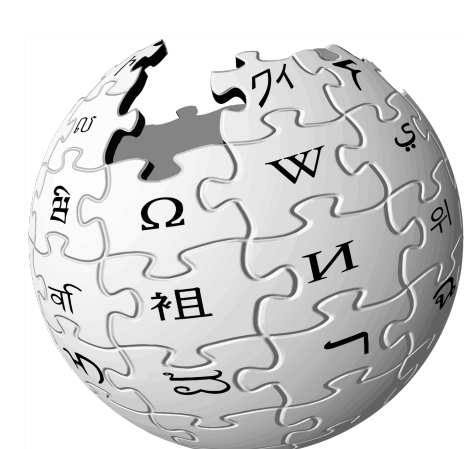
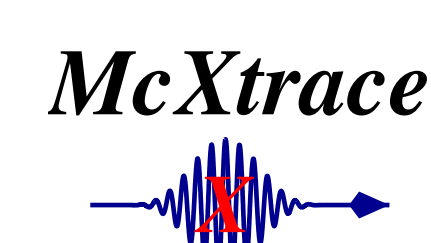
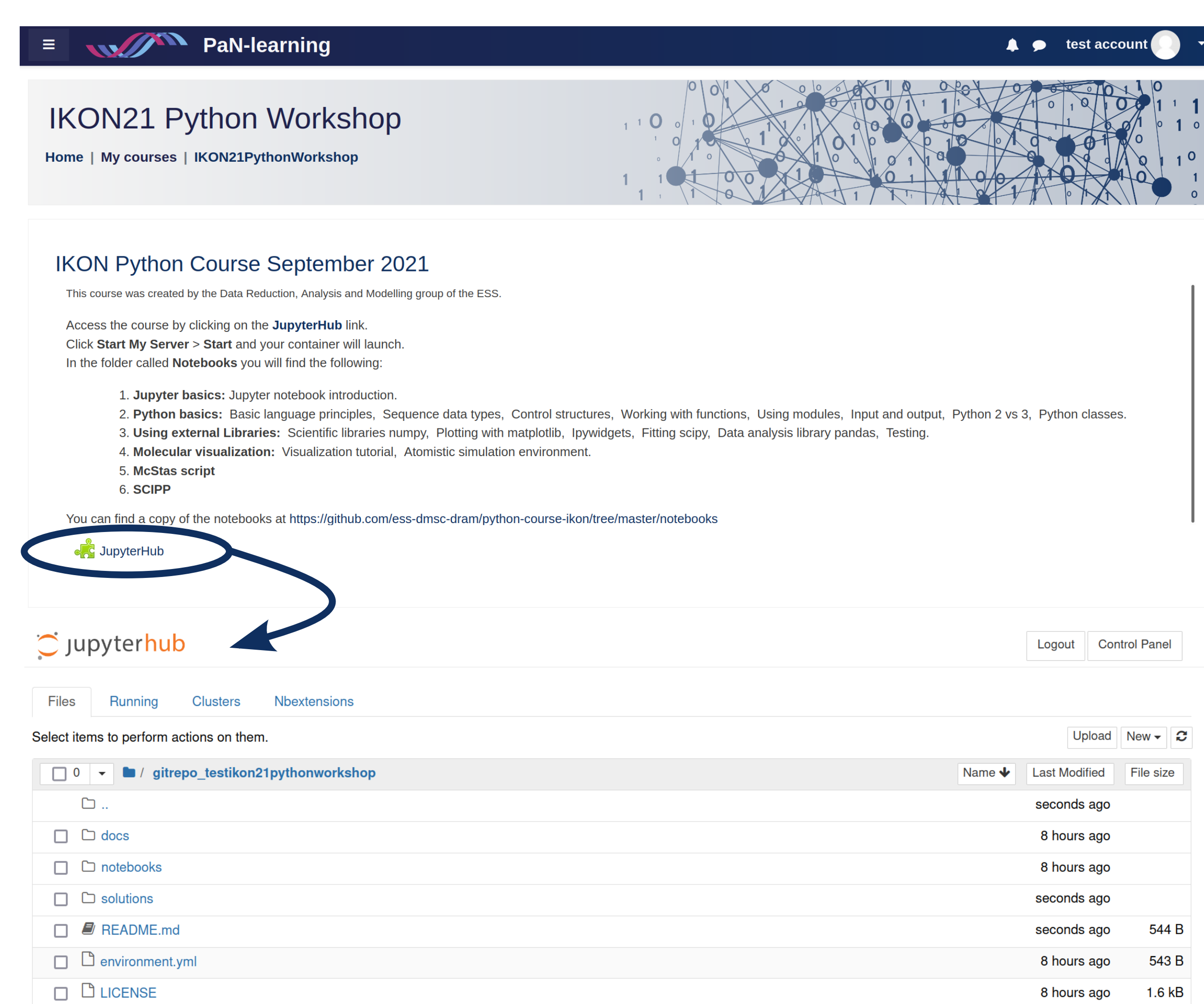


### Jupyter Intergration



Teachers can include **Jupyter notebooks** in their courses. This provides beamline users and students a place to learn and practice data analysis and reduction.

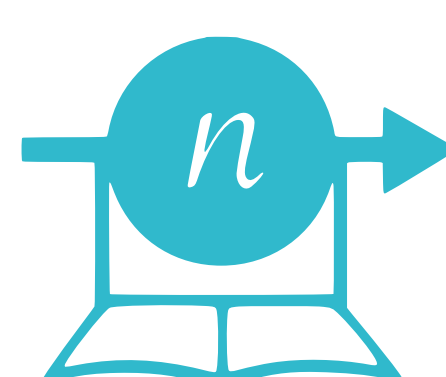
- Notebooks run remotely on ESS servers.
- A **docker** container is launched for each student.
- Content is pulled from **github** so you only need to update there.
- Mainstream modules and software are already installed.
- Only people enrolled on a course can access the notebooks.
- We will soon migrate to **JupyterLab**.



### Wiki Pages

PaN-learning also has an attached wikipedia-style section.

- Does not require a log in.
- Great for notes on the theory of beamlines and data analysis.



### History

PaN-learning was built on E-neutrons which was developed by Associate Professor of Copenhagen University, Lindy Udby. The project was then taken over by EU-funded institute collaboration projects.

**Courses on photon science are desperately lacking!**

**If you are interested in contributing to PaN-learning please contact us.**  
**Email: [admin@pan-learning.org](mailto:admin@pan-learning.org)**  
**Call: + 45 25 50 39 44**



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