

Setup

```
# In SDCC,  
source  
/gpfs/mnt/gpfs02/sphenix/user/yeonjugo/LehighMLworkshop2026/setup_uvcgan.sh  
  
source  
/gpfs/mnt/gpfs02/sphenix/user/yeonjugo/LehighMLworkshop2026/pythia_jet_images/install_sphenix_torch2_kernel.sh  
  
mkdir generate_pythia_jet_images  
  
cd generate_pythia_jet_images  
  
cp /sphenix/u/yeonjugo/SE/LehighMLworkshop2026/pythia_jet_images/*.ipynb .  
  
tmux new -s generate_pythia_jet_images  
  
# in tmux, change the port number e.g. 8081 etc and use it consistently to all below  
commands  
jupyter-lab --no-browser --port=8089  
  
# open another terminal  
ssh -N -L 8089:localhost:8089 sphnxuser08  
  
# on your browser use the address of your own jupyter notebook e.g.  
http://localhost:8089/lab?token=05e1efedda6c6f6b0a0bf8d6cc8a244c0fd95xxx
```


Copy files:

<https://drive.google.com/file/d/1iIPwJppcwVitJMc7nHdR9IUwGoadCEWi/view?usp=sharing>

Copy macros:

https://drive.google.com/file/d/1UpGF4GF1lw2GTS8_nF3m4Vshr5tzKTQ/view?usp=sharing

environment.yml

Create and use the environment:

conda env create -f environment.yml

conda activate jetml-hands-on

python -m ipykernel install --user --name jetml-hands-on --display-name "Python (jetML hands-on)"

jupyter lab

name: jetml-hands-on

channels:

- pytorch
- conda-forge
- defaults

dependencies:

- python=3.11
- pip

CPU-only PyTorch from the official pytorch conda channel.

This is portable for mixed student laptops and avoids CUDA dependencies.

- pytorch=2.5.1
- torchvision=0.20.1
- torchaudio=2.5.1
- cpuonly

Notebook and plotting tools.

- jupyterlab
- notebook
- ipykernel
- ipywidgets
- nbclient
- nbformat
- matplotlib
- tqdm

Scientific Python and lightweight HEP/array IO helpers.

- numpy
- scipy
- uproot
- awkward
- h5py
- pillow