

# Progress Update

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# Generate large numbers of images

- Generate 200 events in a single file, set the random seed number equal to the file number.

```
e-_200_file_1.root  
e-_200_file_10.root  
e-_200_file_11.root  
e-_200_file_12.root  
e-_200_file_13.root  
e-_200_file_14.root
```

- After reading images

```
image_e-_200_file_1.root  
image_e-_200_file_10.root  
image_e-_200_file_11.root  
image_e-_200_file_12.root  
image_e-_200_file_13.root
```

# Generate large numbers of images

- Now I generate 30 electron files and 20 muon files (8463 events).
- It takes 2h in average to read a single file into images, but a small portion of the files **always exceed the walltime**. They stuck at a certain point.
- I replace them with files using other seed numbers but I don't know whether it has an influence.

# modification of input function

- 1. Put all the files to read in a *filename\_list* and shuffle.
- 2. Use TChain to put all the events together so that I can loop over them.
- 3. The function *read\_file(filename\_list)* read one event each time and return its features and label.