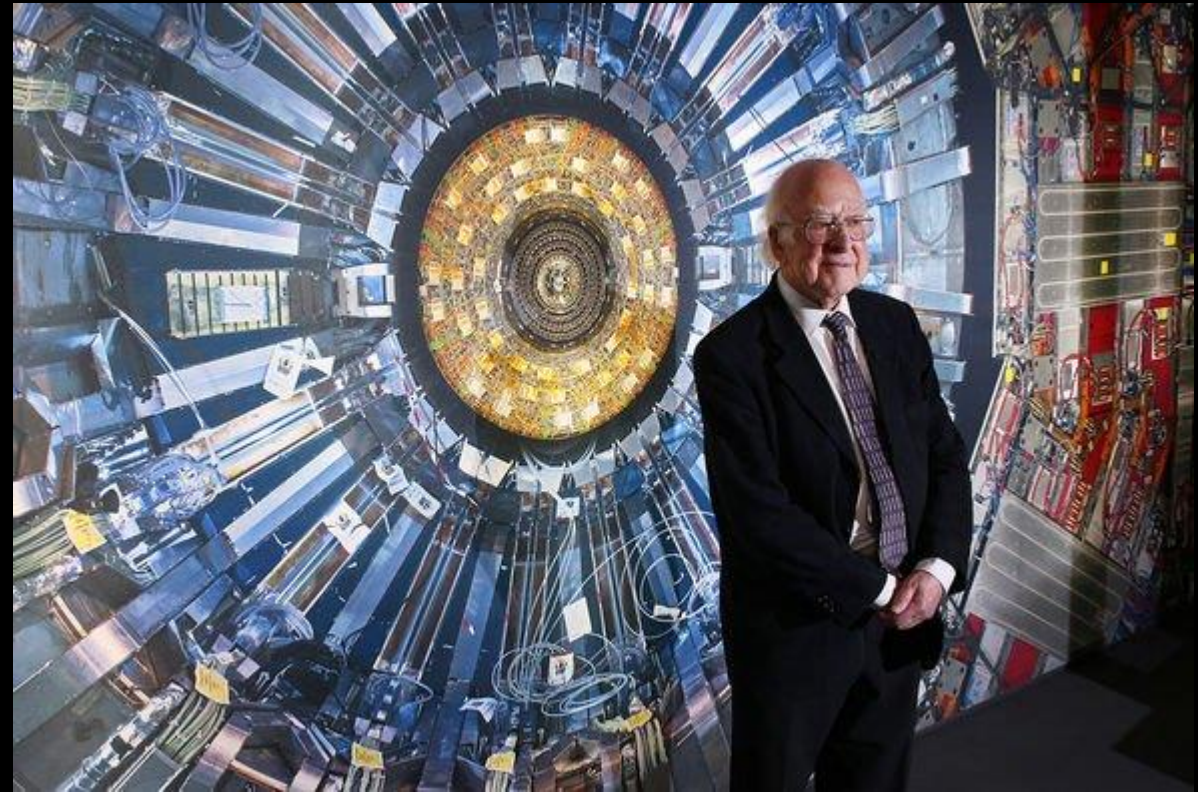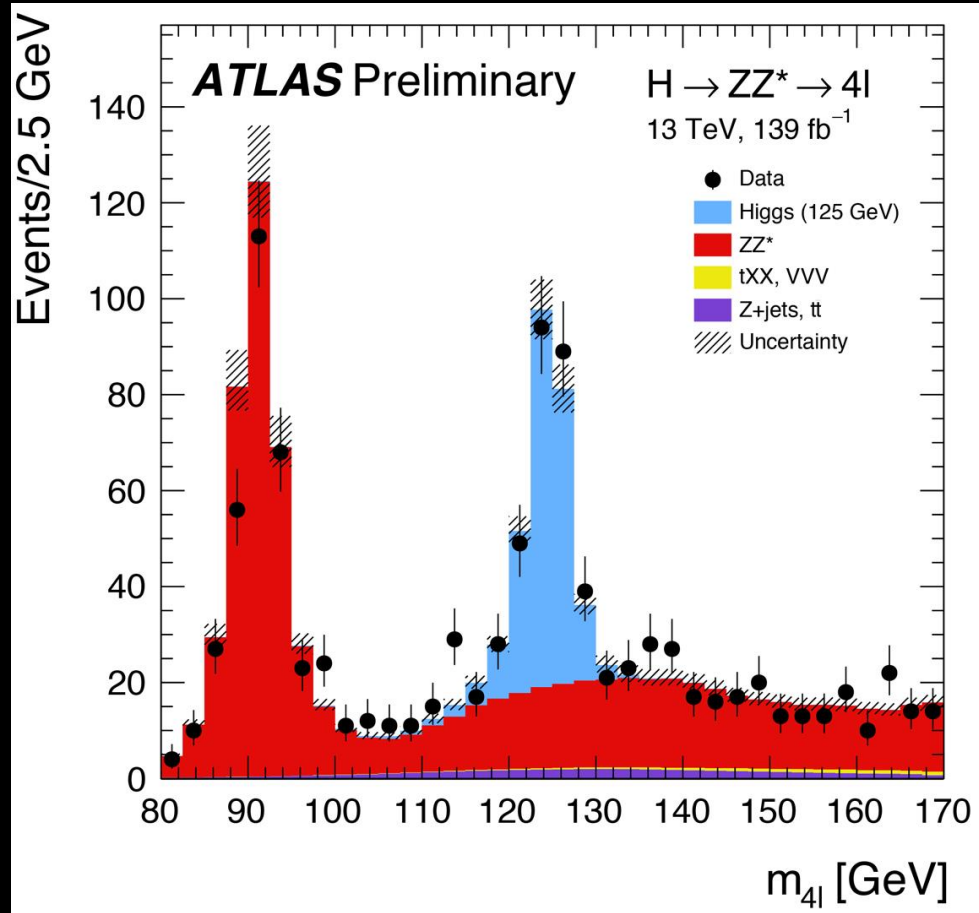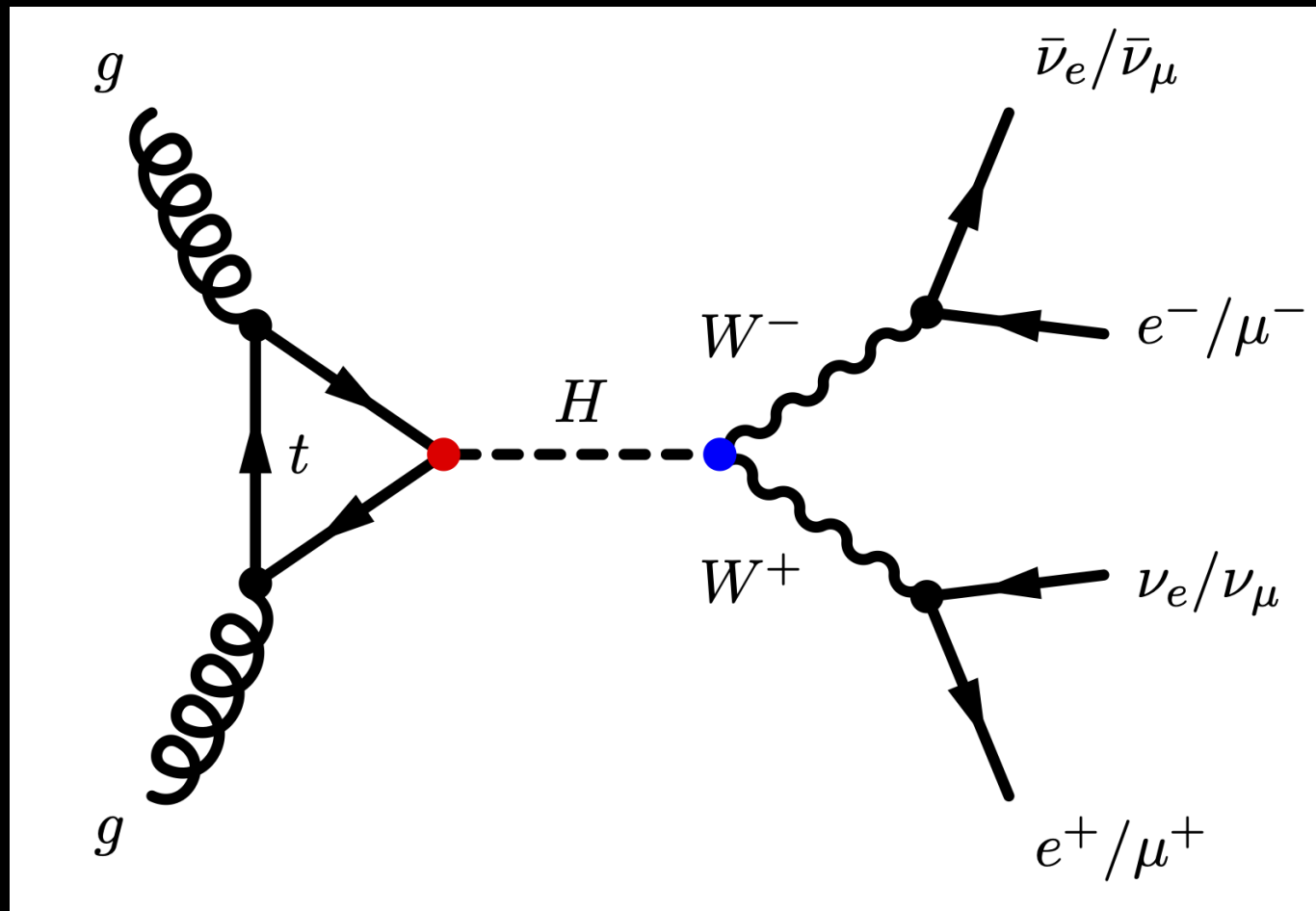# Machine Learning
Day 1 Exercises

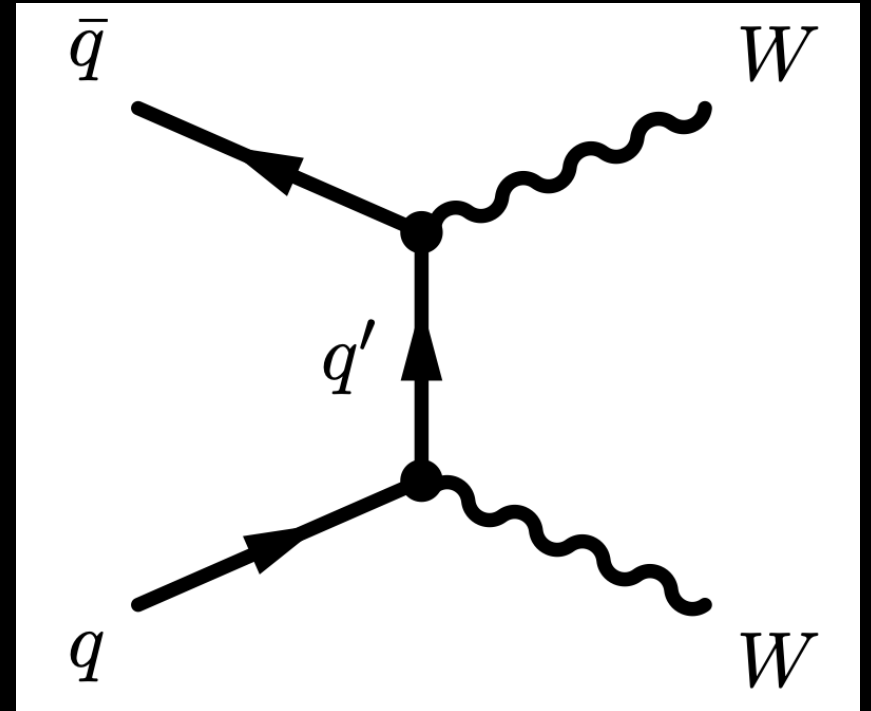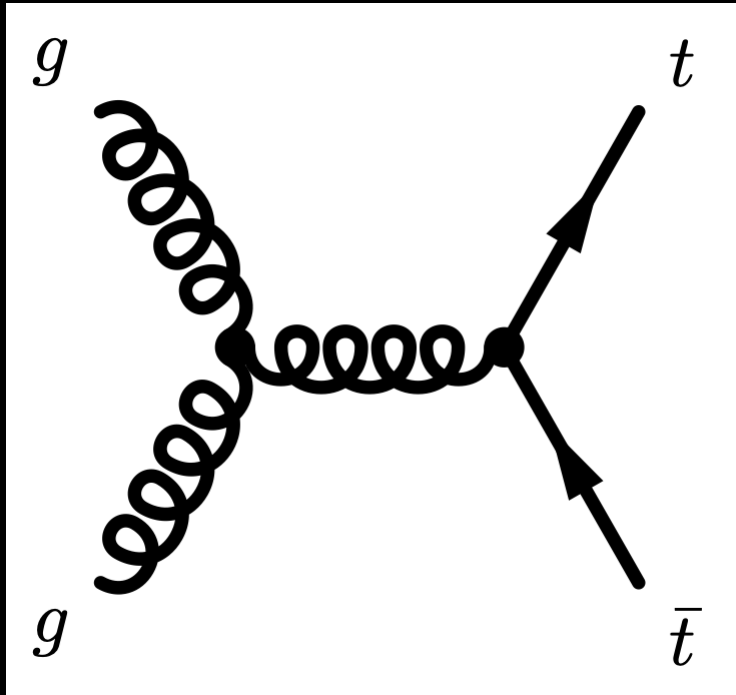C. Tunnell (Rice) G. Watts (University of Washington/Seattle)

The Famous $H \rightarrow WW$ Discovery Plot

$$H \rightarrow WW \rightarrow 2\ell 2\nu$$

Large Backgrounds

What are the differences?

Final states

HWW: $2\ell 2\nu$
$t\bar{t}: WbWb \rightarrow 2\ell 2\nu + 2b$
$WW: 2\ell 2\nu$

Exercise…

1. Load the data
2. Look at the data
3. Build a network
4. Train
5. Adjust the network to improve the training…

The **same** binder/Jupyter server instance can be used for all today's work
No GPU required!