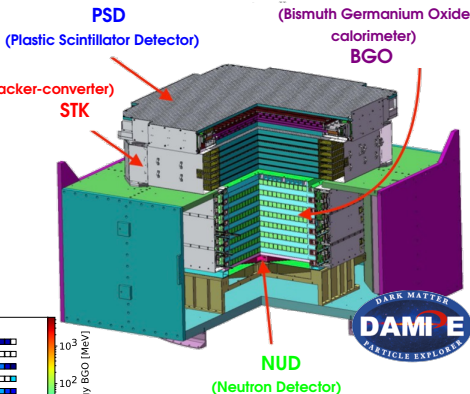
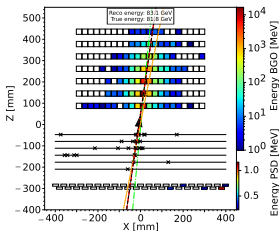


MOTIVATION

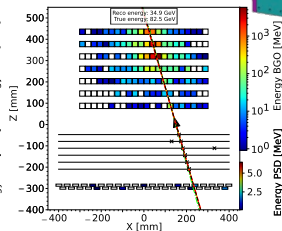
- **Goal:** Obtain an efficient γ -ray event selection
- Most abundant cosmic-ray component: **protons**
- Main difference between γ -rays and protons: **shower topology** in the BGO calorimeter



MC Gamma



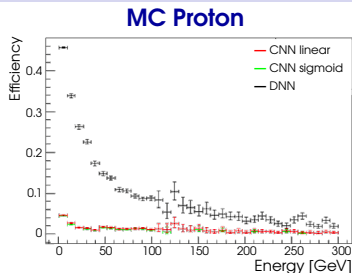
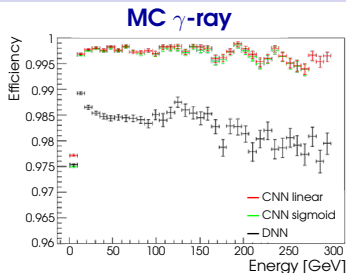
MC Proton



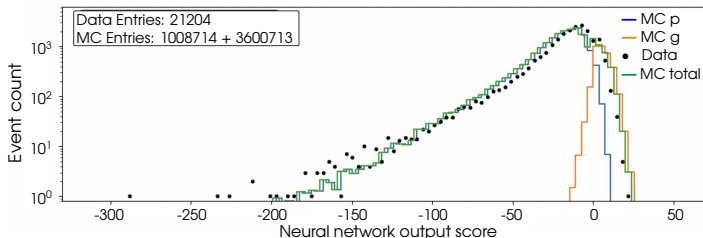
→ ideal ML tool to recognise features from images:

⇒ Convolutional Neural Network!

CNN MODEL, TRAINING, SCORE



- This method significantly outperforms all the existing algorithms, both in γ -ray efficiency and proton rejection! **Output:** CNN score $[-\infty, +\infty]$ validation



Want to learn more details? Please visit my poster in session B :)