First Results
of Gamma/Hadron Separation
in Imaging Air Cherenkov Telescopes
Using Deep Learning Libraries
TensorFlow and PyTorch

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Same training dataset of gamma-ray
and proton images (Monte Carlo
of the TAIGA IACT) was analyzed
by the both software tools:
TensorFlow and PyTorch

After training, same test dataset of gamma-ray and proton images in random proportion (blind analysis) was classified by each of the packages: TensorFlow and PyTorch

Q-factor value
$(N_{gamma2gamma}/N_{gamma})$ / sqrt$(N_{proton2gamma}/N_{proton})$
was calculated for each of these two packages:

- Q(TensorFlow)~1.4 (69% of gamma are saved and 75% of protons are suppressed)

- Q(PyTorch)~1.6 (69% of gamma are saved and 81% of protons are suppressed)