

# Using Lyon GPU

```
EDNN_OPTS=0`.
2024-07-08 14:30:39.556543: E tensorflow/compiler/xla/stream_executor/cuda/cuda_dnn.cc:9342] Unable to register cuDNN factory: Attempting to
register factory for plugin cuDNN when one has already been registered
2024-07-08 14:30:39.556596: E tensorflow/compiler/xla/stream_executor/cuda/cuda_fft.cc:609] Unable to register cuFFT factory: Attempting to
register factory for plugin cuFFT when one has already been registered
2024-07-08 14:30:39.556625: E tensorflow/compiler/xla/stream_executor/cuda/cuda_blas.cc:1518] Unable to register cuBLAS factory: Attempting
to register factory for plugin cuBLAS when one has already been registered
2024-07-08 14:30:39.565883: I tensorflow/core/platform/cpu_feature_guard.cc:182] This TensorFlow binary is optimized to use available CPU in
structions in performance-critical operations.
To enable the following instructions: AVX2 AVX512F AVX512_VNNI FMA, in other operations, rebuild TensorFlow with the appropriate compiler fl
ags.
[2024-07-08 14:30:49,792][INFO] - GPU 0: Tesla V100-SXM2-32GB with compute capability 7.0
[2024-07-08 14:30:49,792][INFO] - System Config: OrderedDict([('cpu_compiler', '/usr/lib/llvm-16/bin/clang'), ('cuda_compute_capabilities',
['sm_35', 'sm_50', 'sm_60', 'sm_70', 'sm_75', 'compute_80']), ('cuda_version', '11.8'), ('cudnn_version', '8'), ('is_cuda_build', True), ('i
s_rocm_build', False), ('is_tensorrt_build', True)])
[2024-07-08 14:30:49,792][INFO] - Setting seed to 42
[2024-07-08 14:30:49,793][INFO] - Setting decay steps to 58125
[2024-07-08 14:30:49,793][INFO] - Using input type: int_const
[2024-07-08 14:30:49,794][INFO] - Using augmentations: []
2024-07-08 14:30:49.879973: I tensorflow/core/common_runtime/gpu/gpu_device.cc:1886] Created device /job:localhost/replica:0/task:0/device:G
PU:0 with 31141 MB memory: -> device: 0, name: Tesla V100-SXM2-32GB, pci bus id: 0000:af:00.0, compute capability: 7.0
[2024-07-08 14:31:06,445][INFO] - Drawing data distribution with 1000 samples
/sps/atlas/c/cflorenc/qgtag/quarkgluontagger/venv/lib/python3.9/site-packages/atlasify/__init__.py:88: UserWarning: Attempted to set non-pos
itive bottom ylim on a log-scaled axis
```

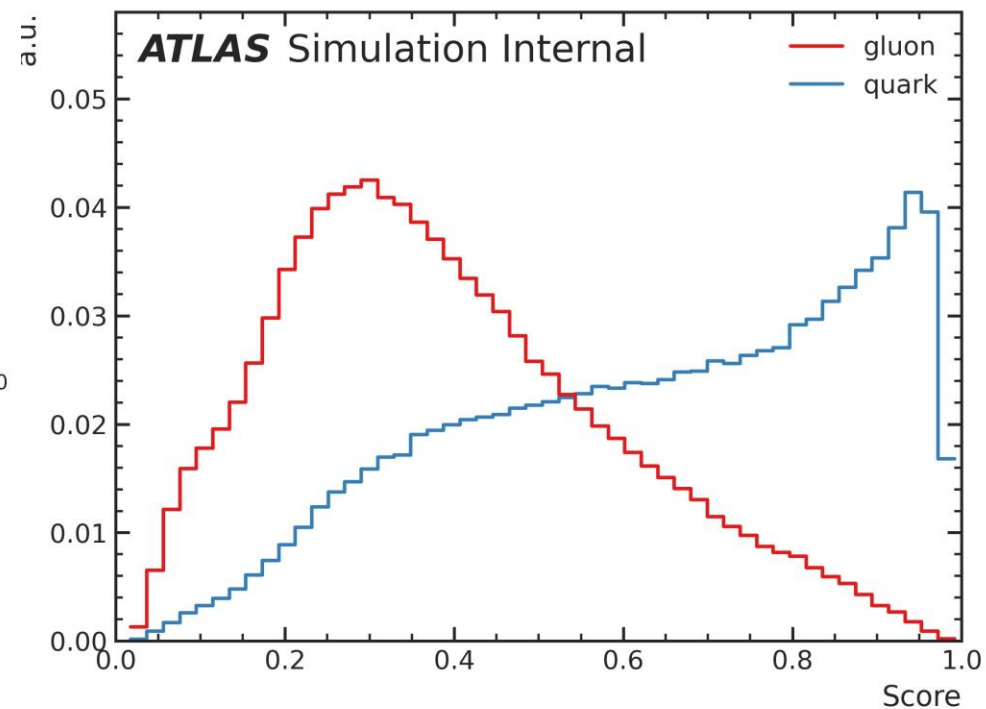
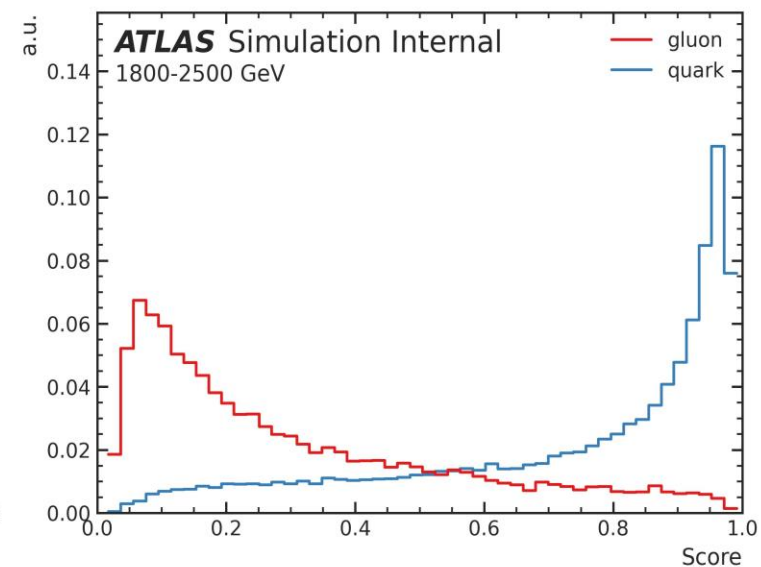
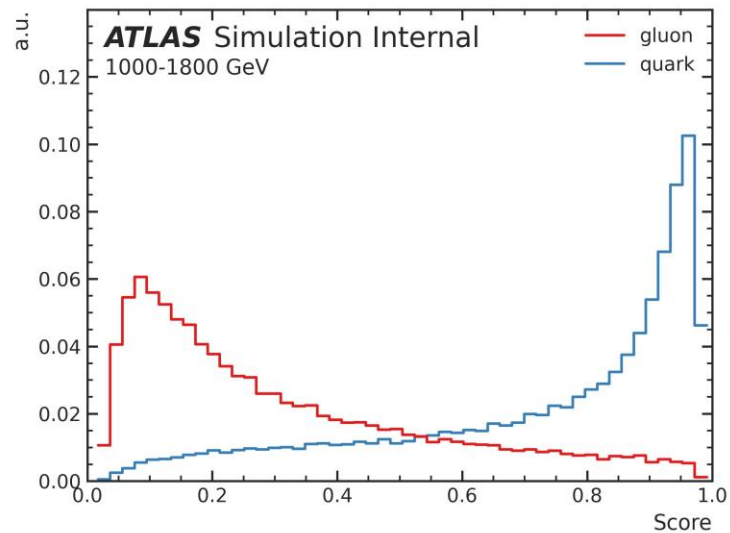
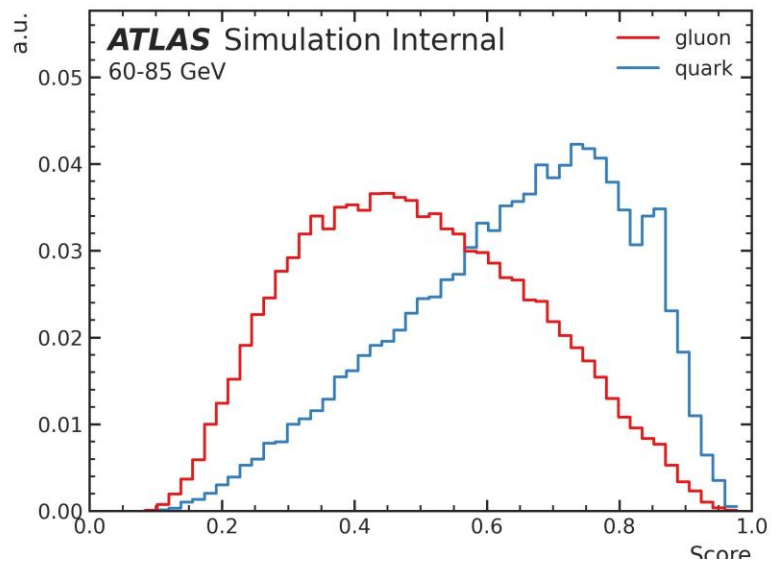
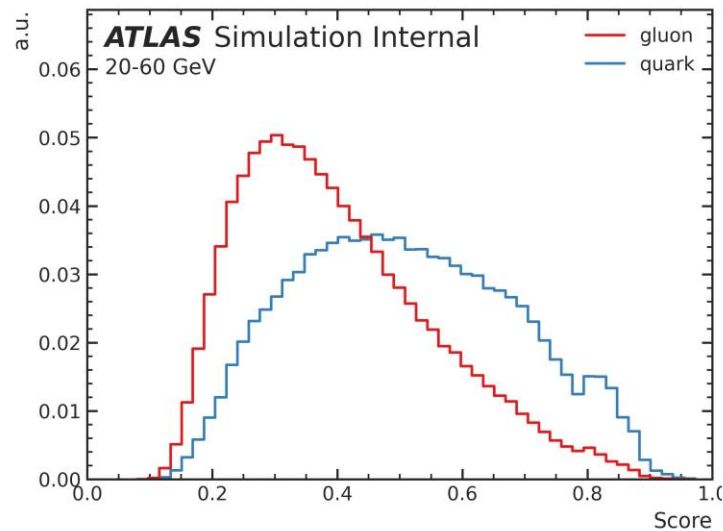
# Number of Events by Region

Full Region: 10M of training

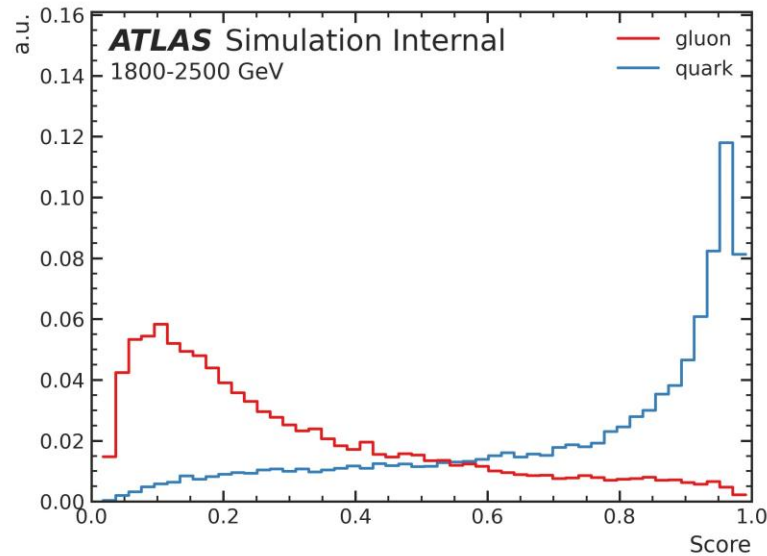
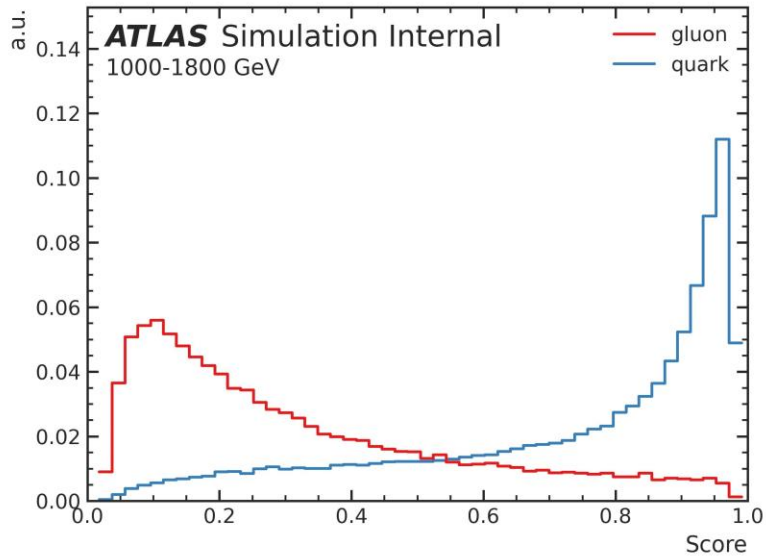
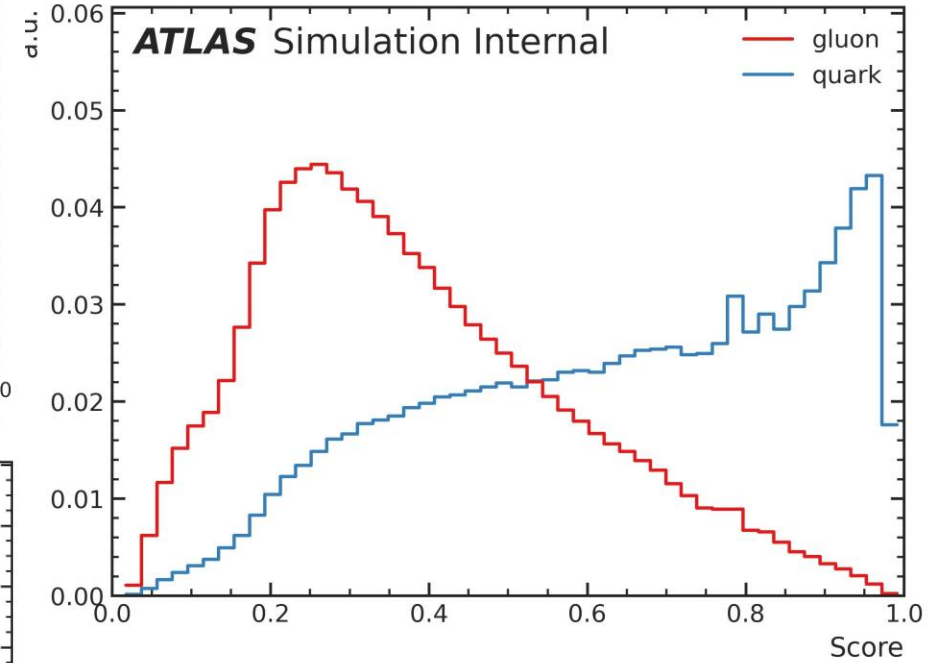
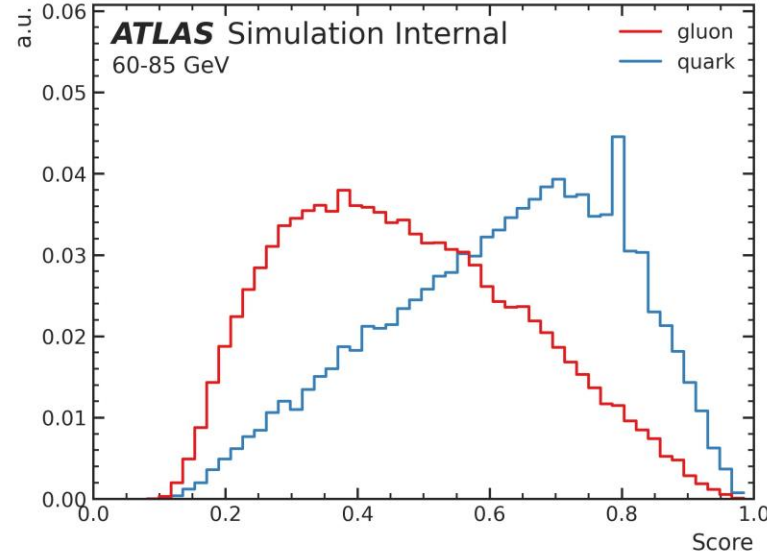
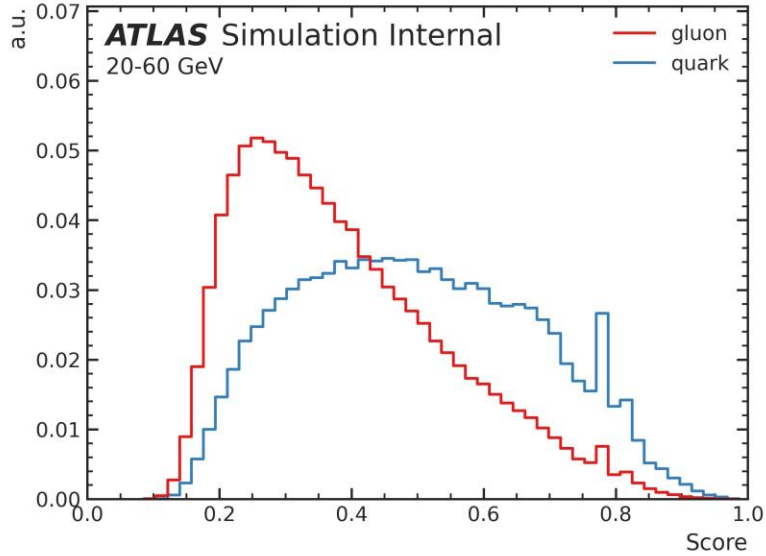
Central Region: 8.5M of training

Forward Region: 3.0M of training

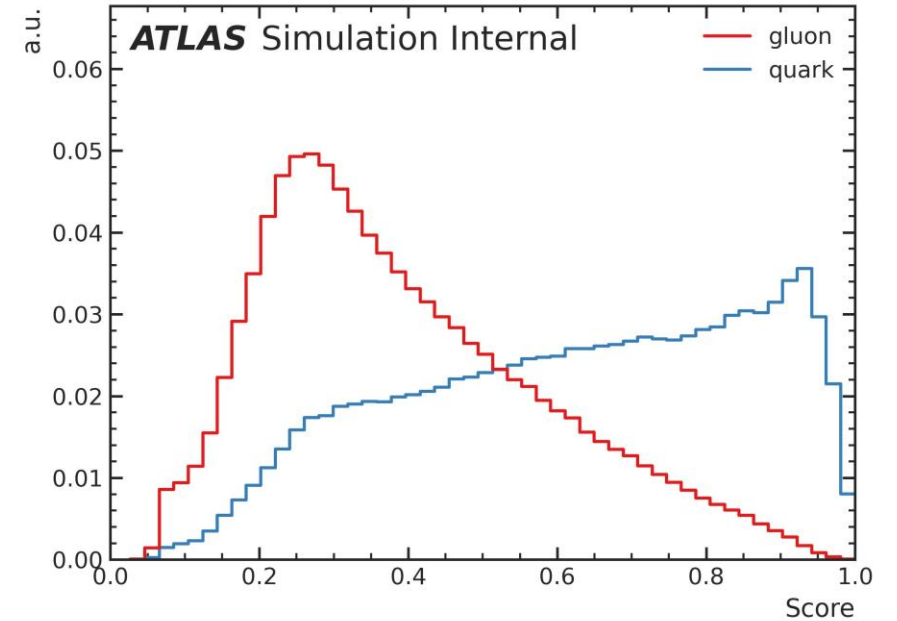
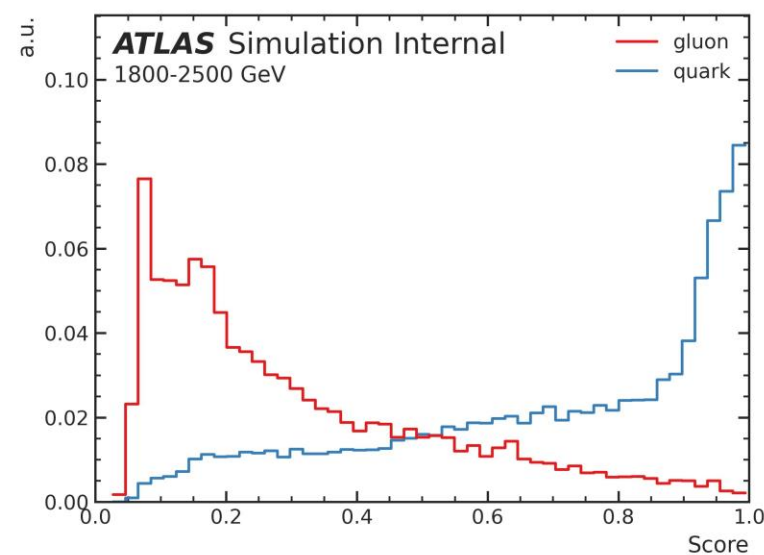
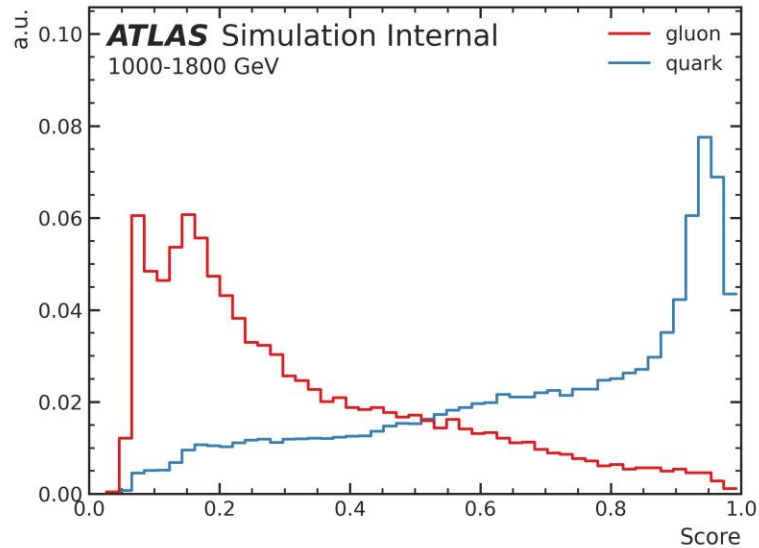
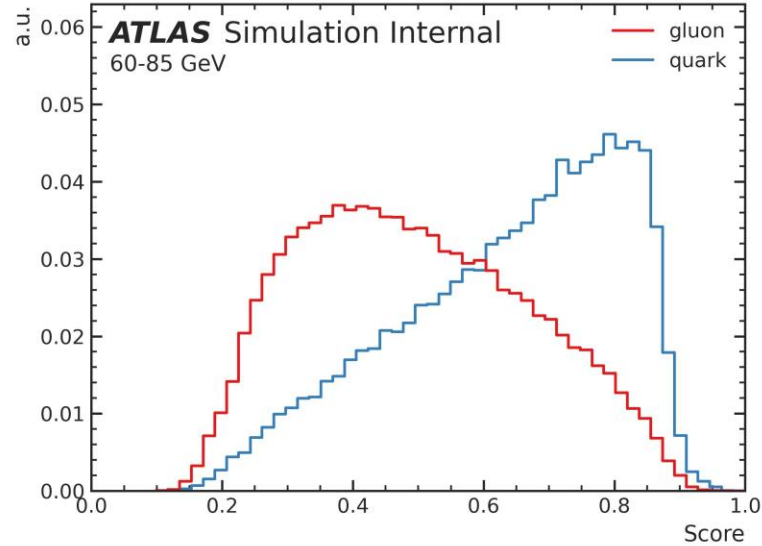
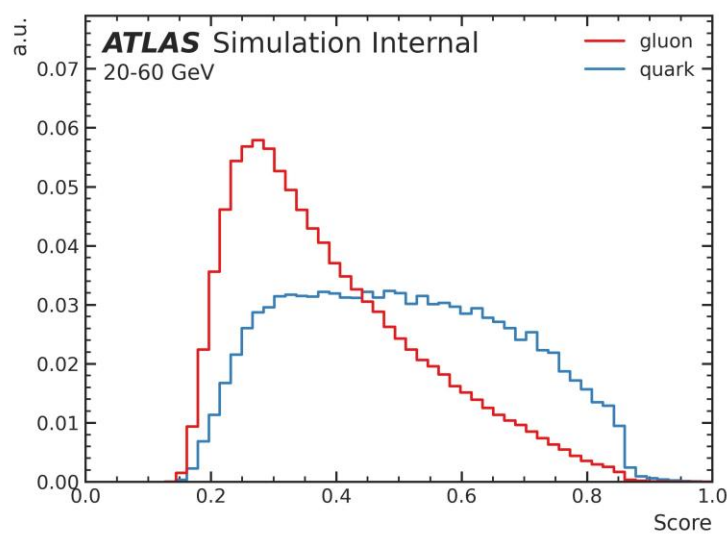
# Depart. Constituents. Full Region.



# Part. Constituents. Full Region.

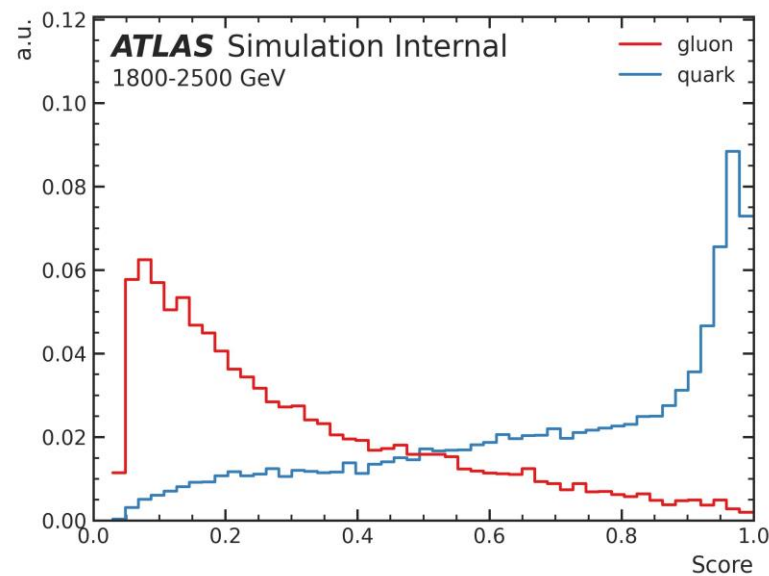
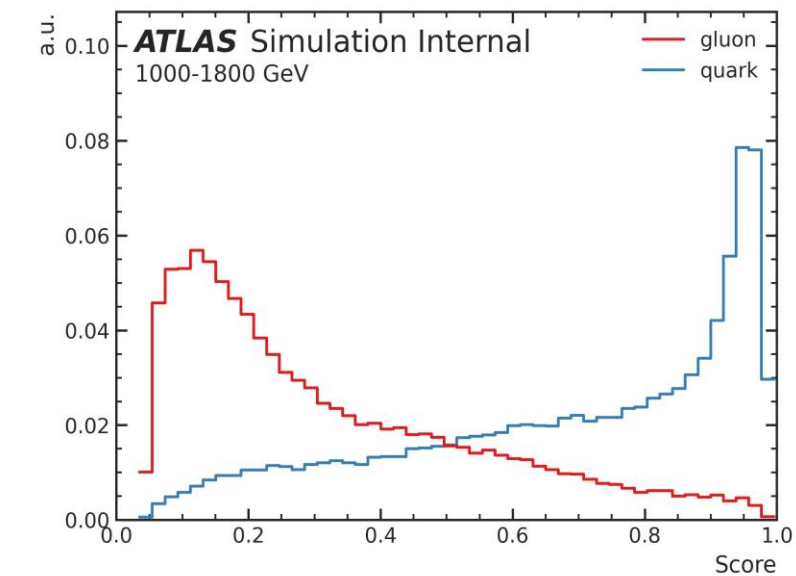
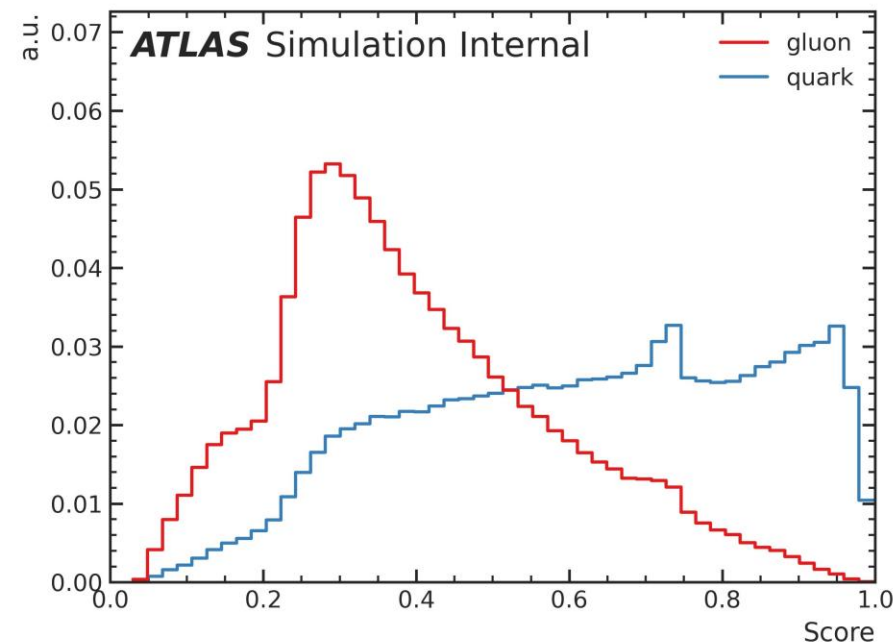
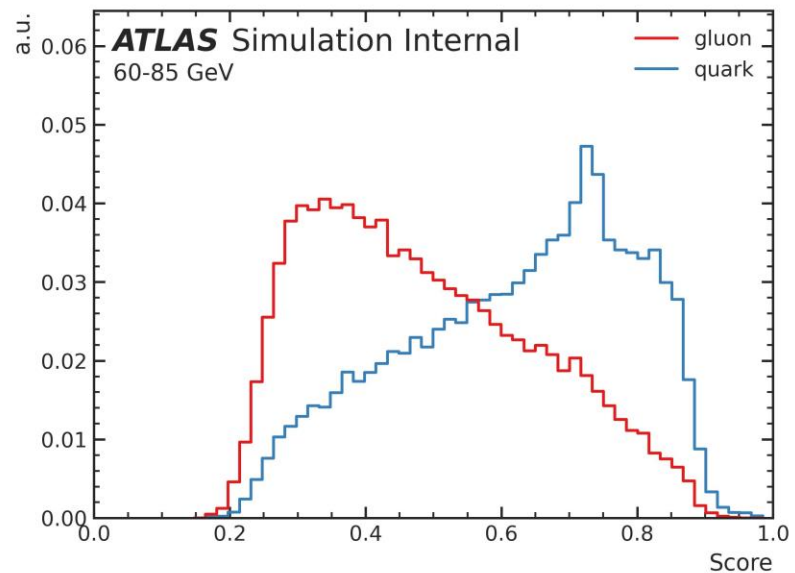
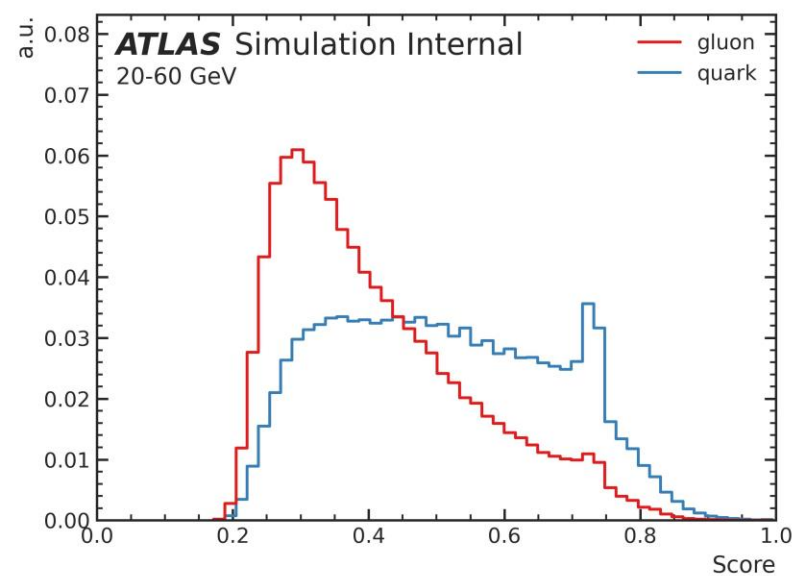


# Highway. High Level. Full Region.

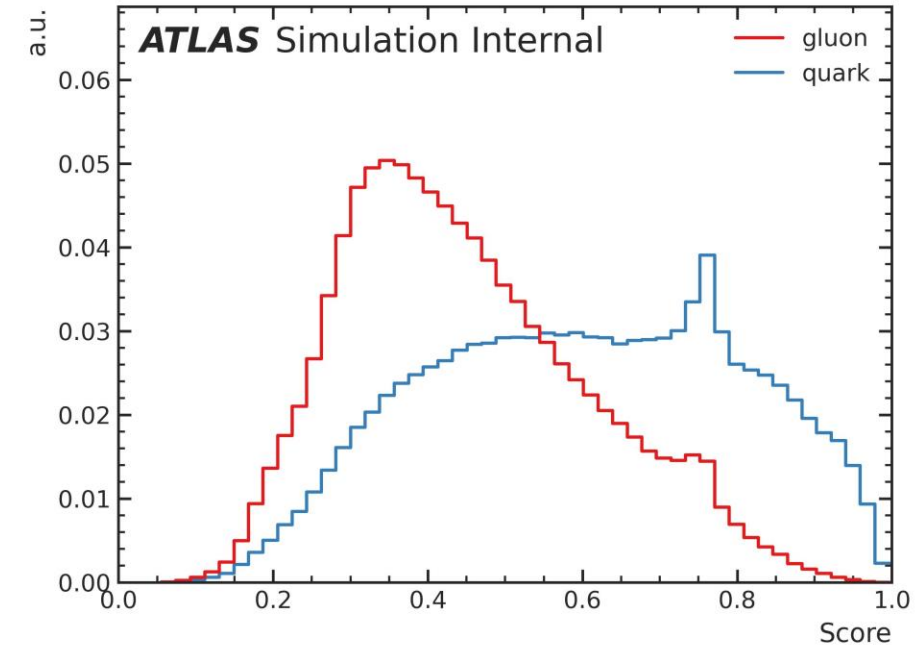
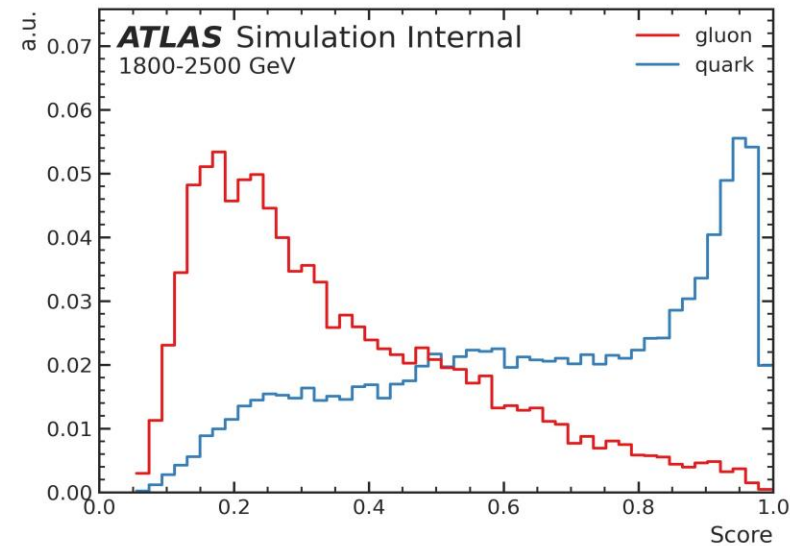
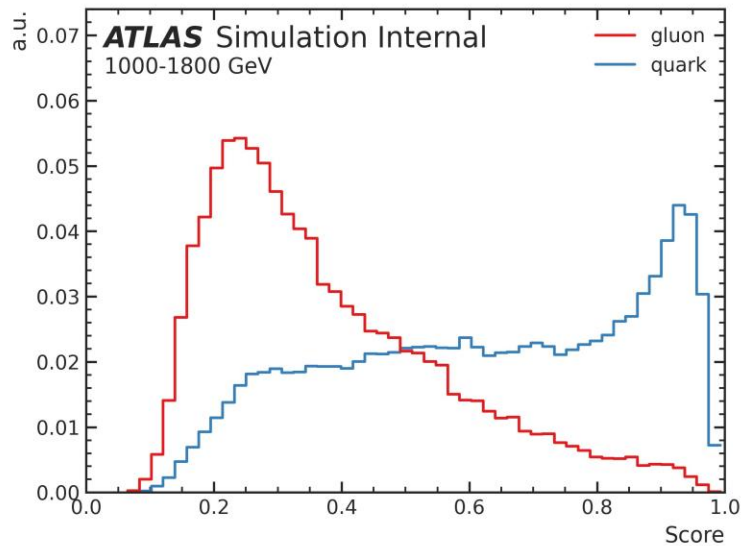
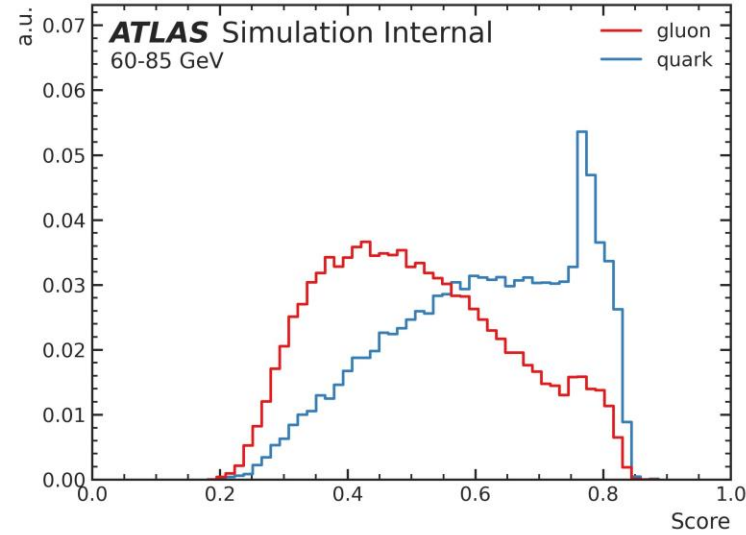
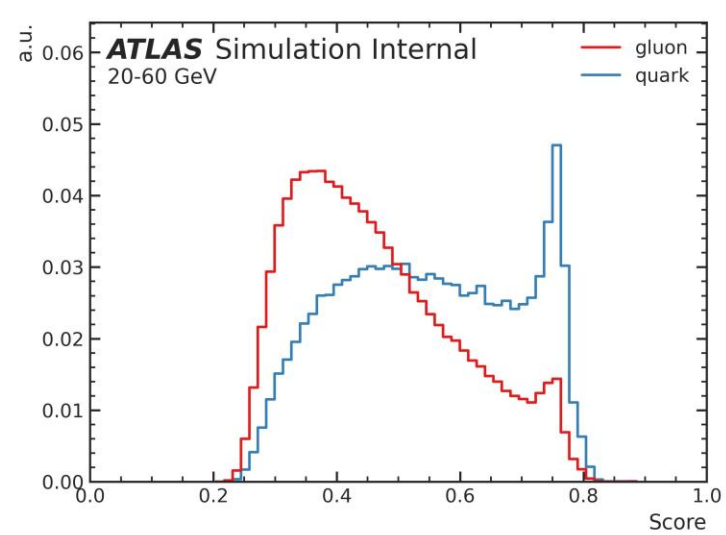




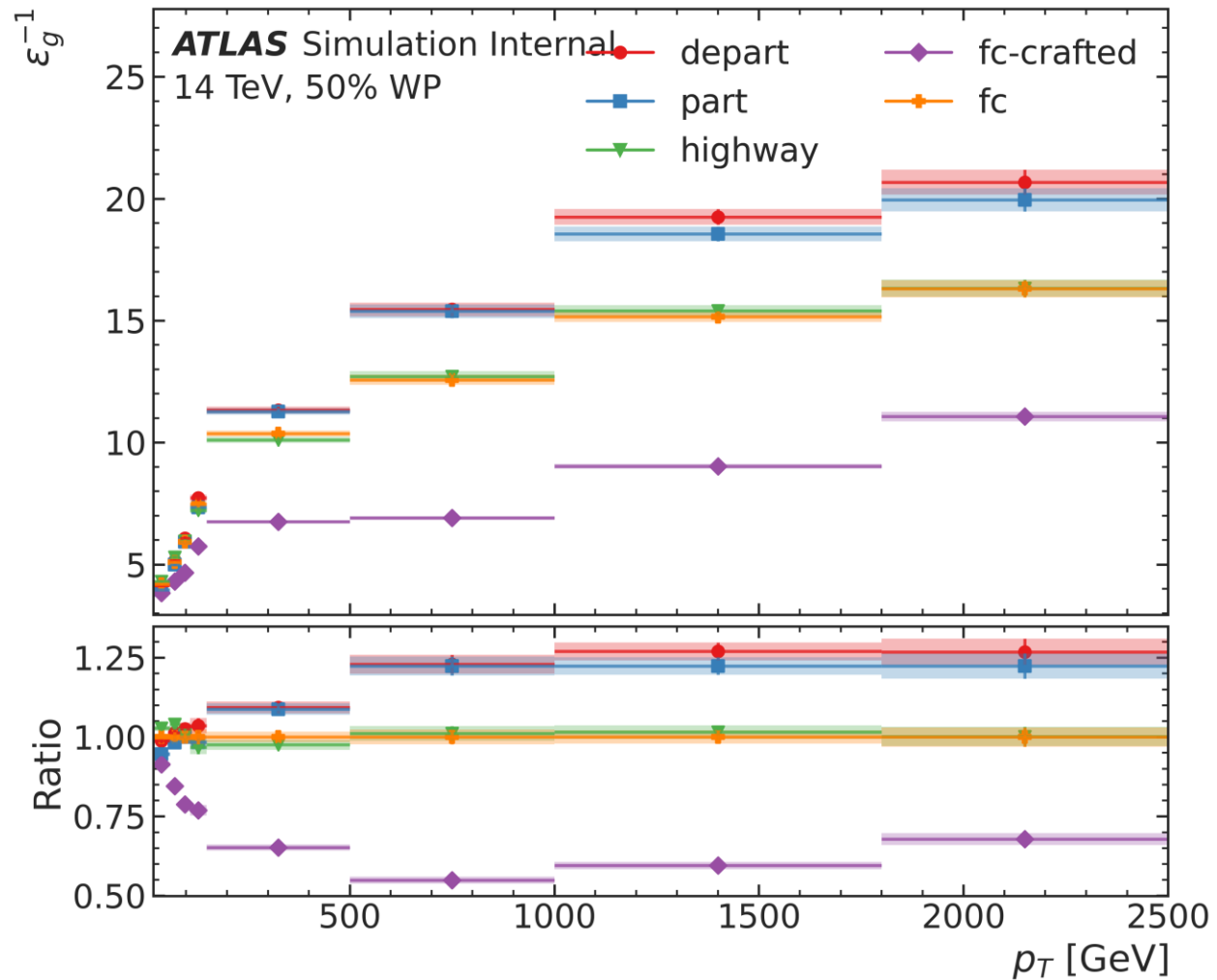
# FC. High Level. Full Region.



# FC. Crafted. Full Region.



# Gluon Rejection





# **L3 Gluing error study on single muons**