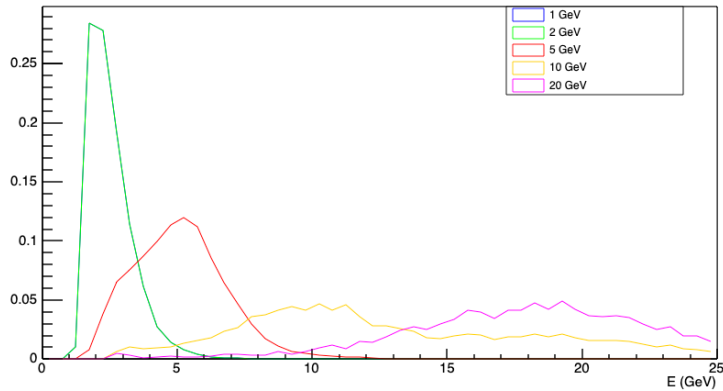
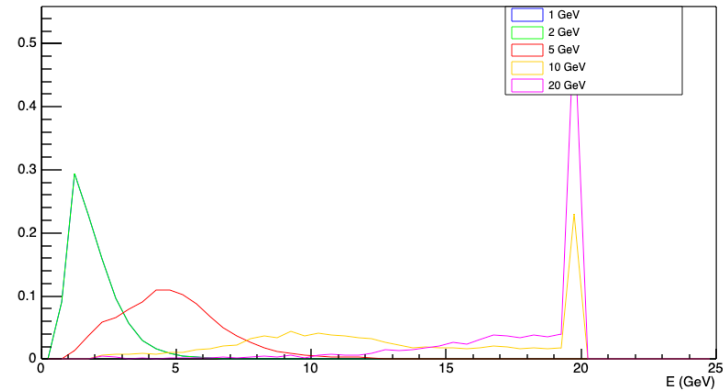


Pi-

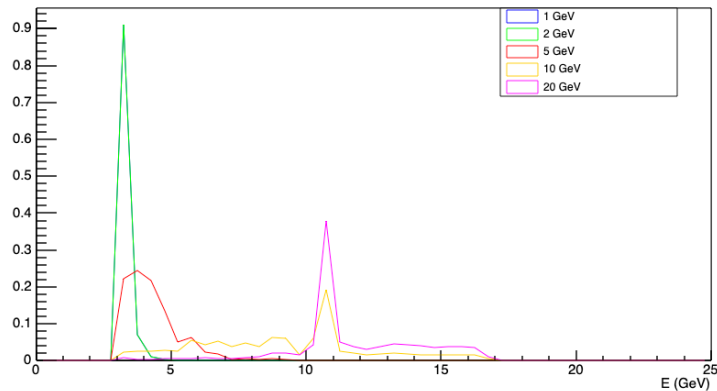
Calibrated Cluster Energy (LD)



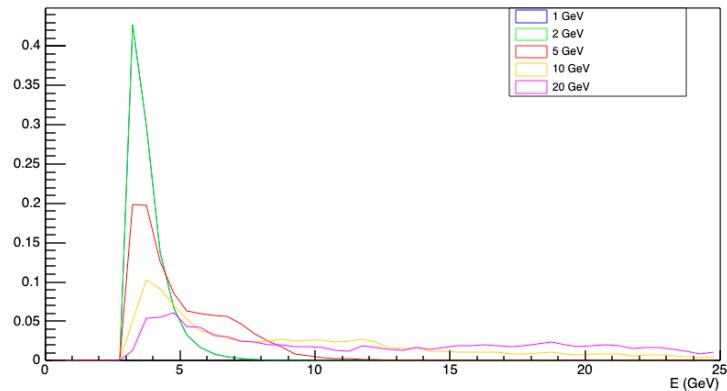
Calibrated Cluster Energy (MLP)



Calibrated Cluster Energy (KNN)



Calibrated Cluster Energy (FDAGA)

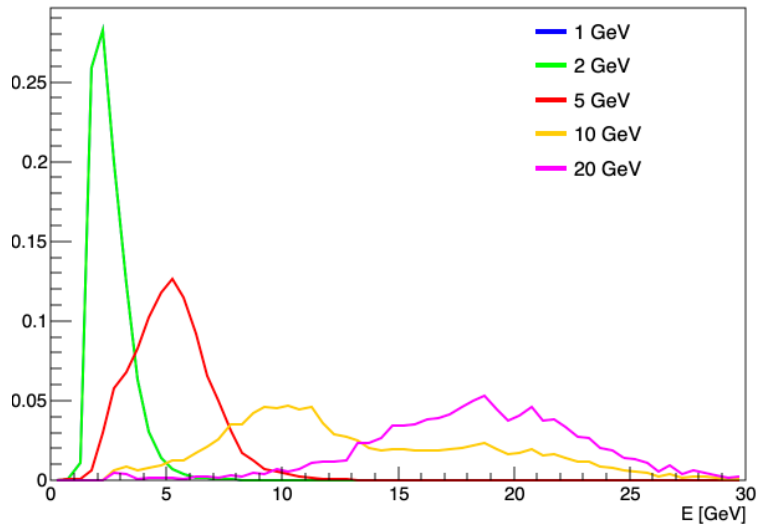


```
eLeadBHCa1,
eLeadBEMC,
eSumScFiLayer1,
eSumScFiLayer2,
eSumScFiLayer3,
eSumScFiLayer4,
eSumScFiLayer5,
eSumScFiLayer6,
eSumScFiLayer7,
eSumScFiLayer8,
eSumScFiLayer9,
eSumScFiLayer10,
eSumScFiLayer11,
eSumScFiLayer12,
eSumImageLayer1,
eSumImageLayer3,
eSumImageLayer4,
eSumImageLayer6
```

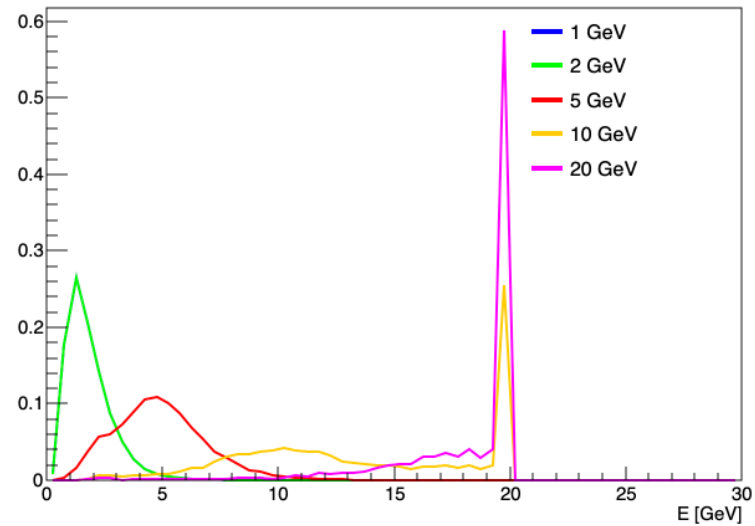
```
// MLP algorithm
mapMethodToOpt["MLP"] = {
"!H",
"!V",
"VarTransform=Norm",
"NeuronType=ReLU",
"NCycles=200000",
"HiddenLayers=N-16",
"TestRate=10",
"TrainingMethod=BP",
"Sampling=1",
"SamplingEpoch=1",
"LearningRate=0.005",
"DecayRate=5e-6",
"ConvergenceImprove=1e-11",
"ConvergenceTests=25000",
"!UseRegulator"
};
```

Pi-

Calibrated Cluster Energy (LD)



Calibrated Cluster Energy (MLP)

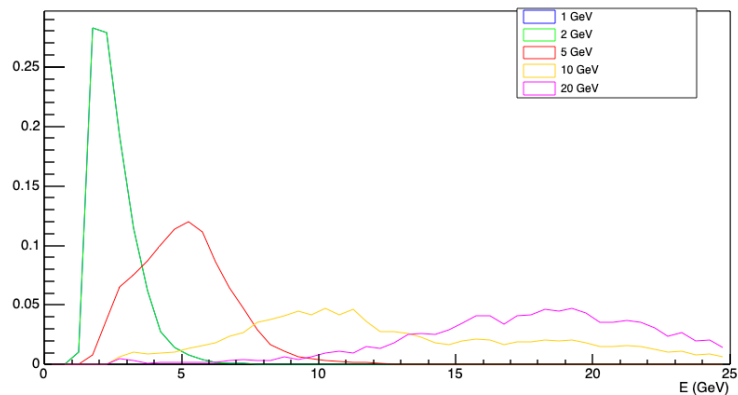


```
eLeadBHCa1,
eLeadBEMC,
eSumScFiLayer1,
eSumScFiLayer2,
eSumScFiLayer3,
eSumScFiLayer4,
eSumScFiLayer5,
eSumScFiLayer6,
eSumScFiLayer7,
eSumScFiLayer8,
eSumScFiLayer9,
eSumScFiLayer10,
eSumScFiLayer11,
eSumScFiLayer12,
eSumImageLayer1,
eSumImageLayer3,
eSumImageLayer4,
eSumImageLayer6
```

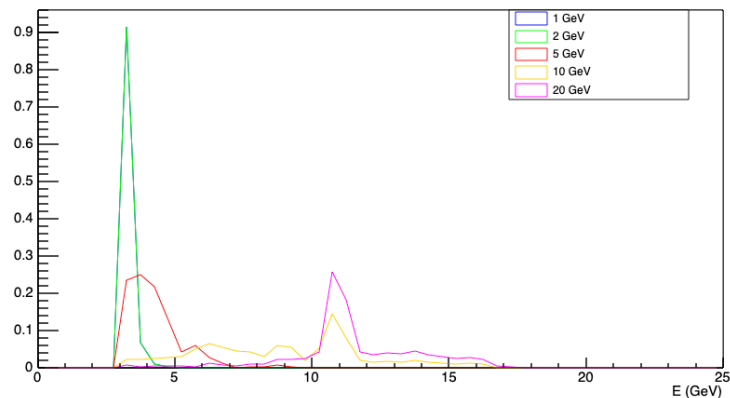
```
// MLP algorithm
mapMethodToOpt["MLP"] = {
"!H",
"!V",
"VarTransform=Norm",
"NeuronType=ReLU",
"NCycles=200000",
"HiddenLayers=N-16",
"TestRate=10",
"TrainingMethod=BP",
"Sampling=1",
"SamplingEpoch=1",
"LearningRate=0.005",
"DecayRate=5e-6",
"ConvergenceImprove=1e-11",
"ConvergenceTests=25000",
"!UseRegulator"
};
```

Pi-

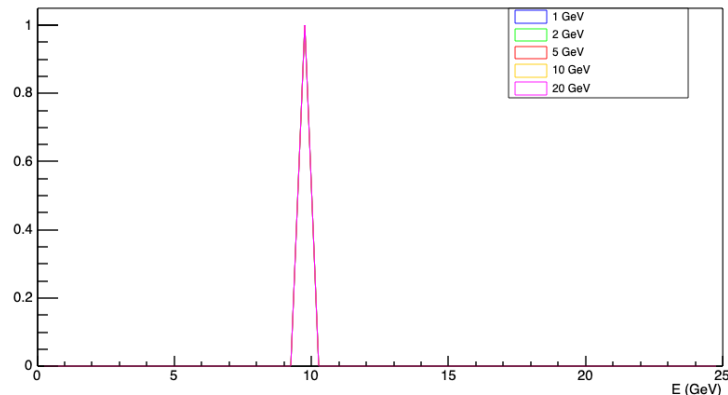
Calibrated Cluster Energy (LD)



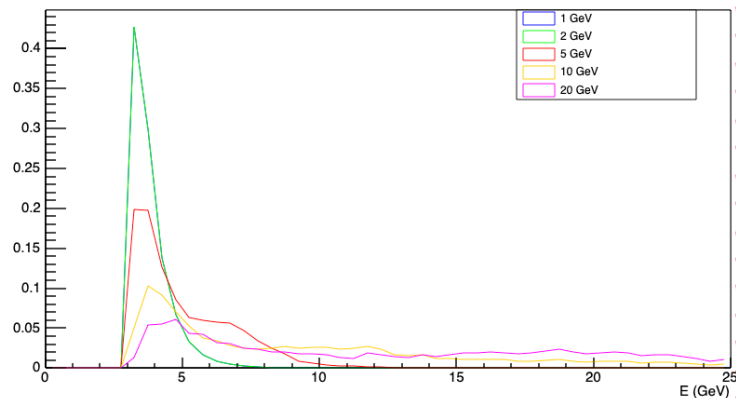
Calibrated Cluster Energy (KNN)



Calibrated Cluster Energy (MLP)



Calibrated Cluster Energy (FDAGA)

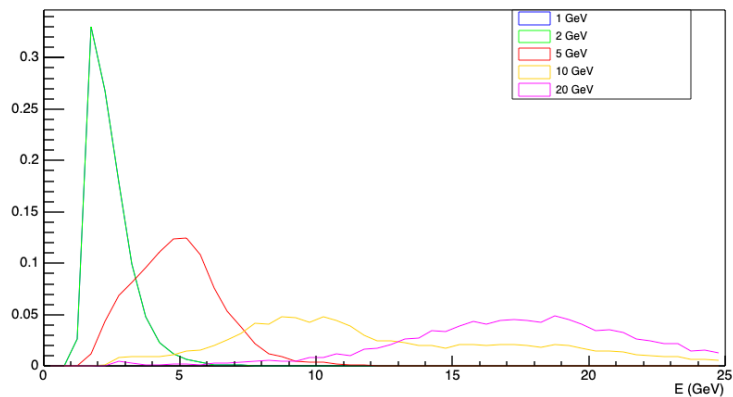


```
eLeadBHCa1,
eLeadBEMC,
eSumScFiLayer1,
eSumScFiLayer2,
eSumScFiLayer3,
eSumScFiLayer4,
eSumScFiLayer5,
eSumScFiLayer6,
eSumScFiLayer7,
eSumScFiLayer8,
eSumScFiLayer9,
eSumScFiLayer10,
eSumScFiLayer11,
eSumScFiLayer12,
eSumImageLayer1,
eSumImageLayer3,
eSumImageLayer4,
```

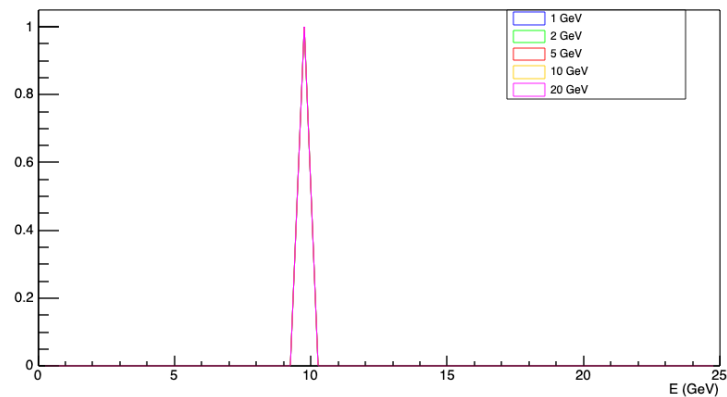
```
// MLP algorithm
mapMethodToOpt["MLP"] = {
"!H",
"!V",
"VarTransform=Norm",
"NeuronType=ReLU",
"NCycles=200000",
"HiddenLayers=N-16",
"TestRate=10",
"TrainingMethod=BP",
"Sampling=1",
"SamplingEpoch=1",
"LearningRate=0.005",
"DecayRate=5e-6",
"ConvergenceImprove=1e-11",
"ConvergenceTests=25000",
"!UseRegulator"
};
```

Pi-

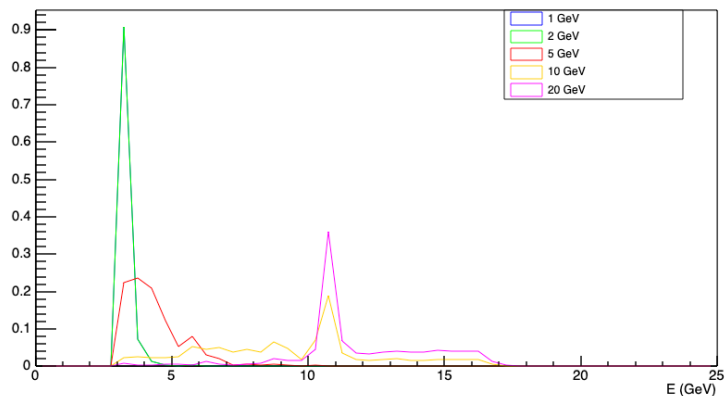
Calibrated Cluster Energy (LD)



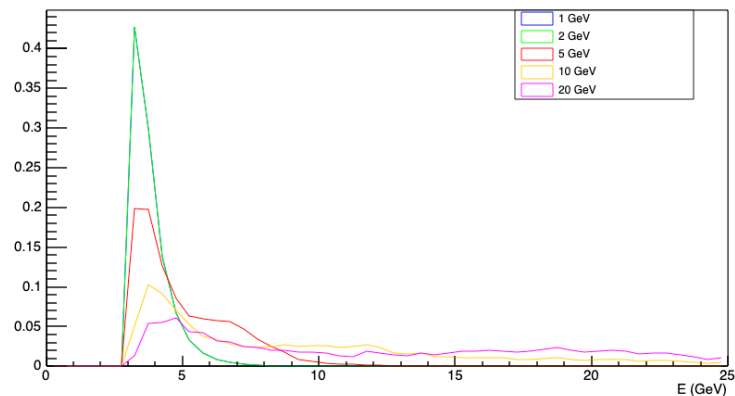
Calibrated Cluster Energy (MLP)



Calibrated Cluster Energy (KNN)



Calibrated Cluster Energy (FDAGA)

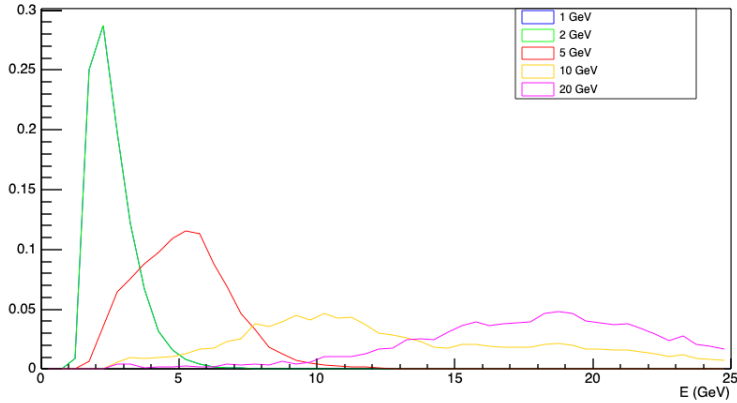


```
eLeadBHCa1,
eLeadBEMC,
eSumScFiLayer1,
eSumScFiLayer2,
eSumScFiLayer3,
eSumScFiLayer4,
eSumScFiLayer5,
eSumScFiLayer6,
eSumScFiLayer7,
eSumScFiLayer8,
eSumScFiLayer9,
eSumScFiLayer10,
eSumScFiLayer11,
eSumScFiLayer12,
eSumImageLayer1,
eSumImageLayer3,
eSumImageLayer4,
eSumImageLayer6
```

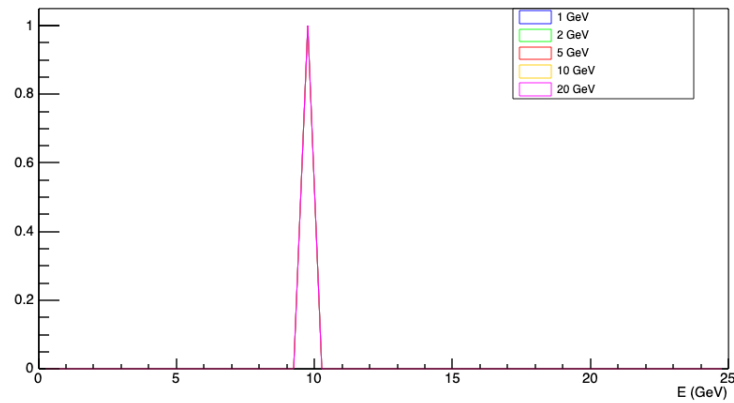
```
// MLP algorithm
mapMethodToOpt["MLP"] = {
"!H",
"!V",
"VarTransform=Norm",
"NeuronType=ReLU",
"NCycles=200000",
"HiddenLayers=N-16",
"TestRate=10",
"TrainingMethod=BP",
"Sampling=1",
"SamplingEpoch=1",
"LearningRate=0.005",
"DecayRate=5e-6",
"ConvergenceImprove=1e-11",
"ConvergenceTests=25000",
"!UseRegulator"
};
```

Pi-

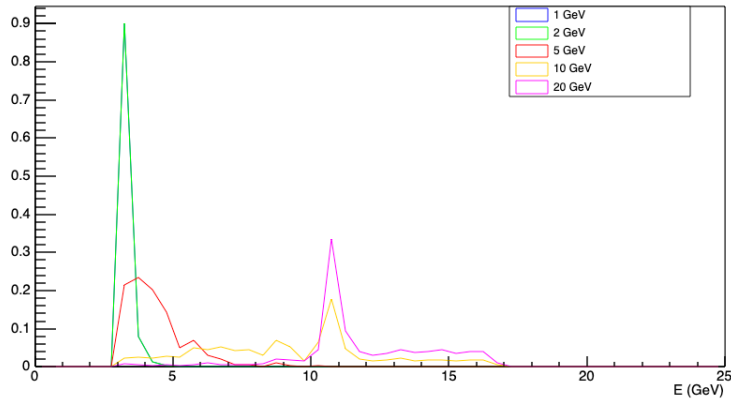
Calibrated Cluster Energy (LD)



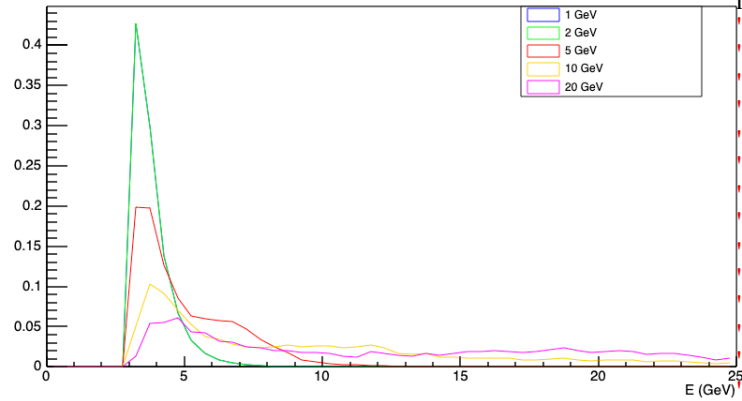
Calibrated Cluster Energy (MLP)



Calibrated Cluster Energy (KNN)



Calibrated Cluster Energy (FDAGA)

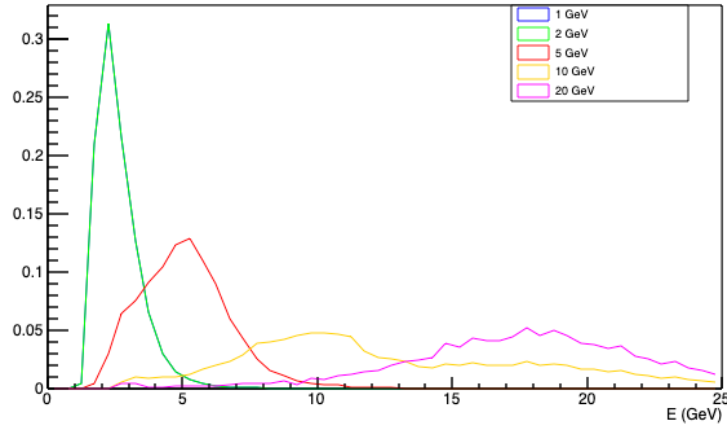


```
eLeadBHCa1,
eLeadBEMC,
eSumScFiLayer1,
eSumScFiLayer2,
eSumScFiLayer3,
eSumScFiLayer4,
eSumScFiLayer5,
eSumScFiLayer6,
eSumScFiLayer7,
eSumScFiLayer8,
eSumScFiLayer9,
eSumScFiLayer10,
eSumScFiLayer11,
eSumScFiLayer12,
eSumImageLayer1,
eSumImageLayer3,
eSumImageLayer4,
eSumImageLayer6
```

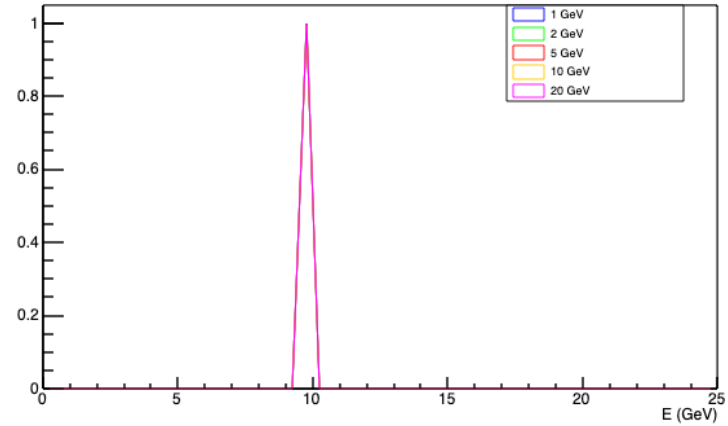
```
// MLP algorithm
mapMethodToOpt["MLP"] = {
"!H",
"!V",
"VarTransform=Norm",
"NeuronType=ReLU",
"NCycles=200000",
"HiddenLayers=N-16",
"TestRate=10",
"TrainingMethod=BP",
"Sampling=1",
"SamplingEpoch=1",
"LearningRate=0.005",
"DecayRate=5e-6",
"ConvergenceImprove=1e-11",
"ConvergenceTests=25000",
"!UseRegulator"
};
```

Pi-

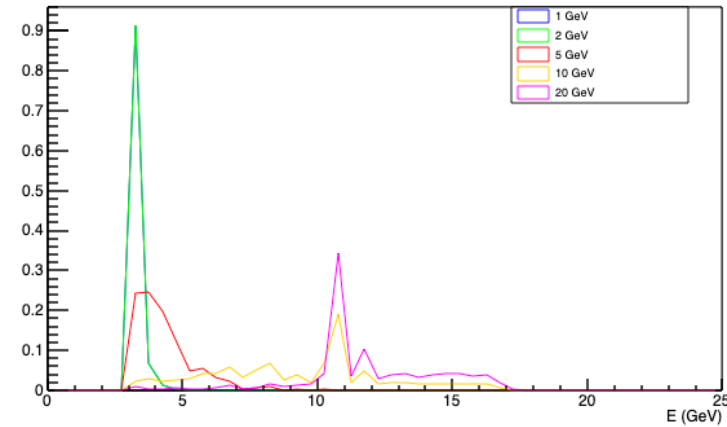
Calibrated Cluster Energy (LD)



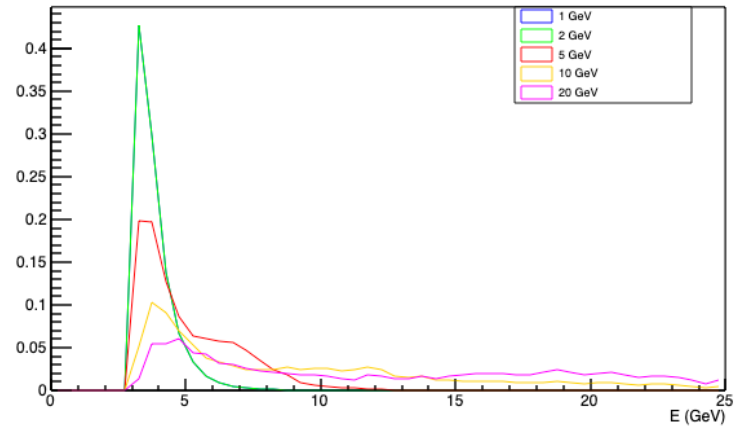
Calibrated Cluster Energy (MLP)



Calibrated Cluster Energy (KNN)



Calibrated Cluster Energy (FDAGA)

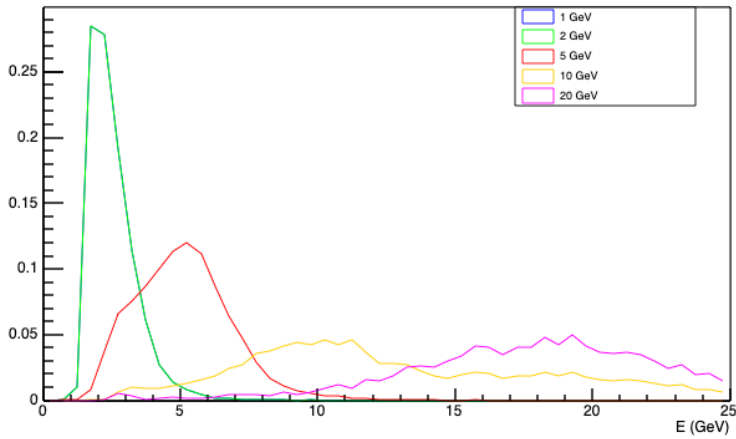


```
eLeadBHCa1,
eLeadBEMC,
eSumScFiLayer1,
eSumScFiLayer2,
eSumScFiLayer3,
eSumScFiLayer4,
eSumScFiLayer5,
eSumScFiLayer6,
eSumScFiLayer7,
eSumScFiLayer8,
eSumScFiLayer9,
eSumScFiLayer10,
eSumScFiLayer11,
eSumScFiLayer12,
eSumImageLayer1,
eSumImageLayer3,
eSumImageLayer4,
eSumImageLayer6
```

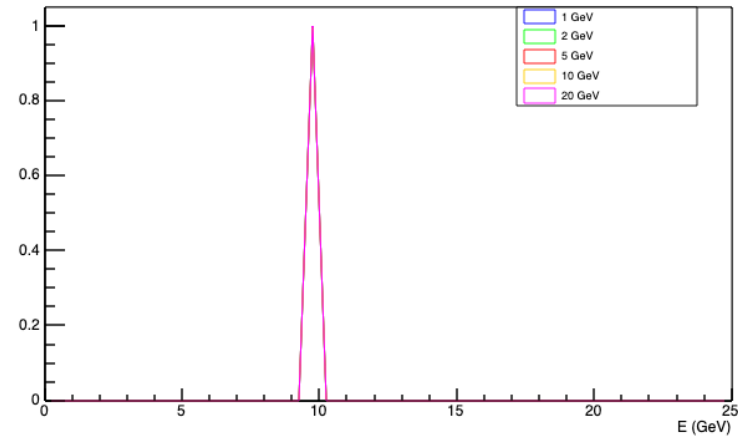
```
// MLP algorithm
mapMethodToOpt["MLP"] = {
"!H",
"!V",
"VarTransform=Norm",
"NeuronType=ReLU",
"NCycles=200000",
"HiddenLayers=N-16",
"TestRate=10",
"TrainingMethod=BP",
"Sampling=1",
"SamplingEpoch=1",
"LearningRate=0.005",
"DecayRate=5e-6",
"ConvergenceImprove=1e-11",
"ConvergenceTests=25000",
"!UseRegulator"
};
```

Pi-

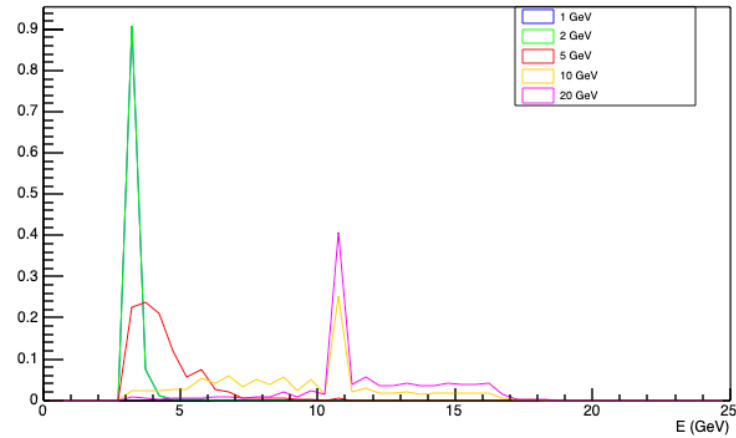
Calibrated Cluster Energy (LD)



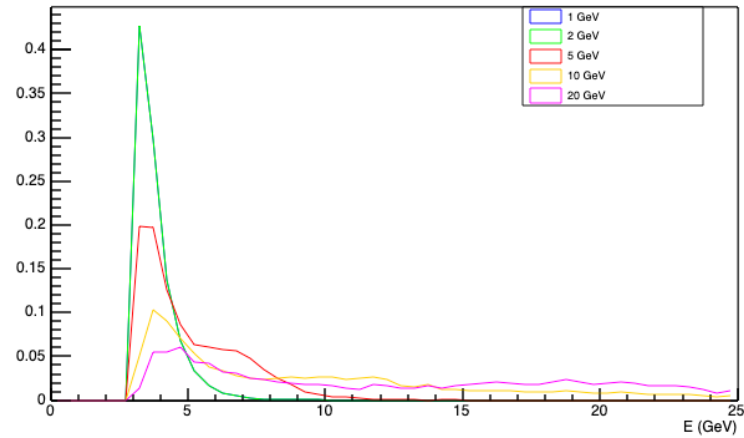
Calibrated Cluster Energy (MLP)



Calibrated Cluster Energy (KNN)



Calibrated Cluster Energy (FDAGA)

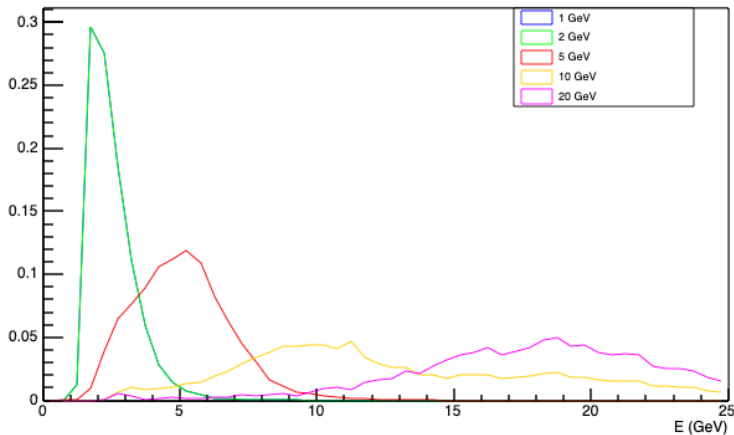


```
eLeadBHCa1,
eLeadBEMC,
eSumScFiLayer1,
eSumScFiLayer2,
eSumScFiLayer3,
eSumScFiLayer4,
eSumScFiLayer5,
eSumScFiLayer6,
eSumScFiLayer7,
eSumScFiLayer8,
eSumScFiLayer9,
eSumScFiLayer10,
eSumScFiLayer11,
eSumScFiLayer12,
eSumImageLayer1,
eSumImageLayer3,
eSumImageLayer4,
eSumImageLayer6
```

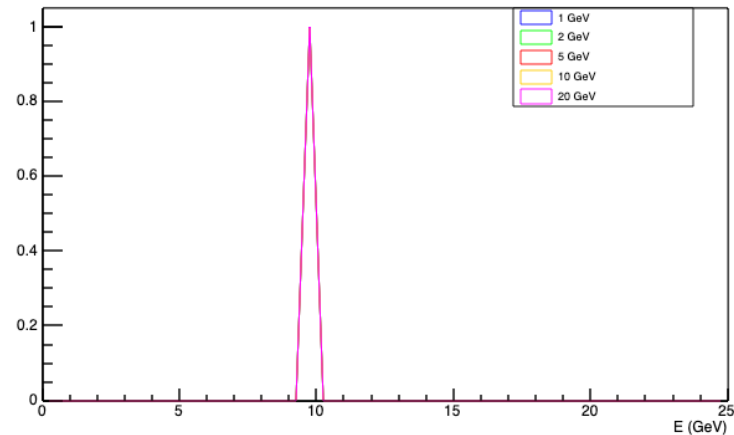
```
// MLP algorithm
mapMethodToOpt["MLP"] = {
"!H",
"!V",
"VarTransform=Norm",
"NeuronType=ReLU",
"NCycles=200000",
"HiddenLayers=N-16",
"TestRate=10",
"TrainingMethod=BP",
"Sampling=1",
"SamplingEpoch=1",
"LearningRate=0.005",
"DecayRate=5e-6",
"ConvergenceImprove=1e-11",
"ConvergenceTests=25000",
"!UseRegulator"
};
```

Pi-

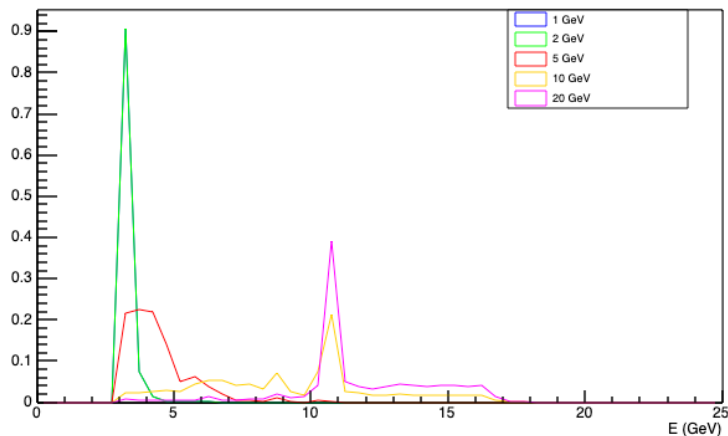
Calibrated Cluster Energy (LD)



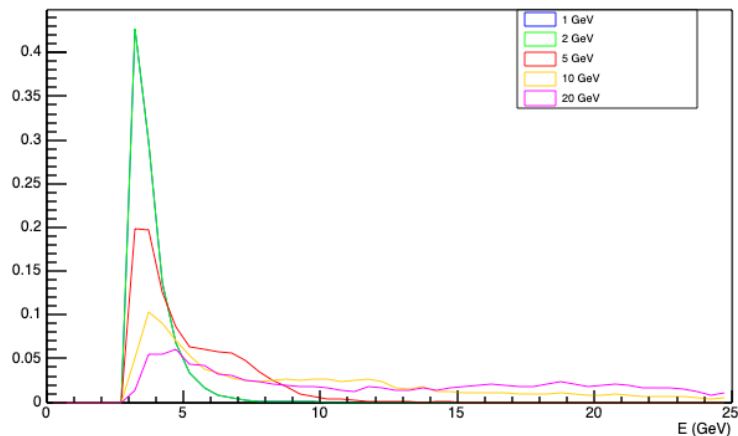
Calibrated Cluster Energy (MLP)



Calibrated Cluster Energy (KNN)



Calibrated Cluster Energy (FDAGA)

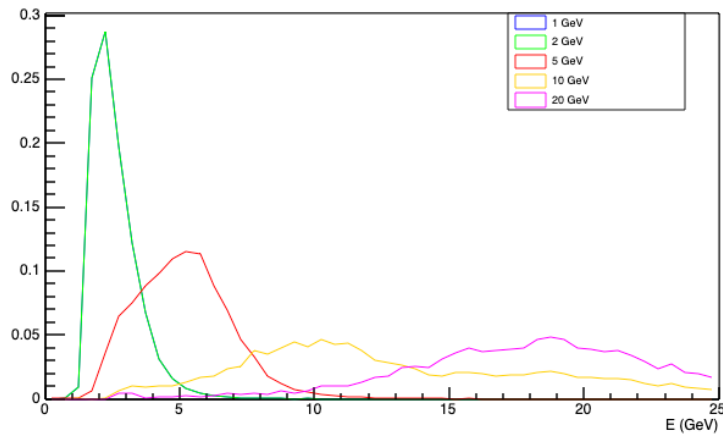


```
eLeadBHCa1,
eLeadBEMC,
eSumScFiLayer1,
eSumScFiLayer2,
eSumScFiLayer3,
eSumScFiLayer4,
eSumScFiLayer5,
eSumScFiLayer6,
eSumScFiLayer7,
eSumScFiLayer8,
eSumScFiLayer9,
eSumScFiLayer10,
eSumScFiLayer11,
eSumScFiLayer12,
eSumImageLayer1,
eSumImageLayer3,
eSumImageLayer6
```

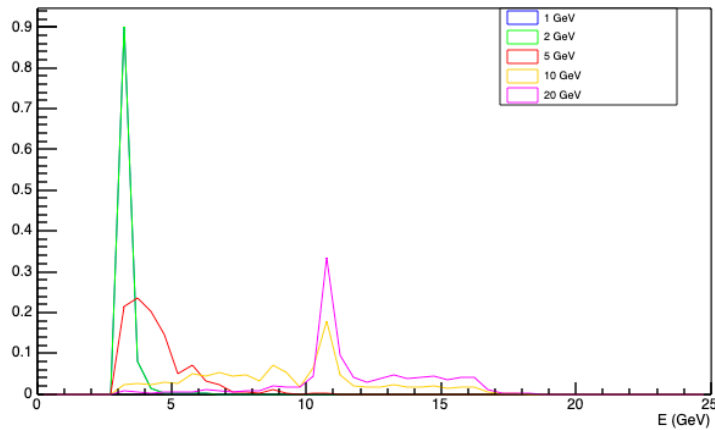
```
// MLP algorithm
mapMethodToOpt["MLP"] = {
"!H",
"!V",
"VarTransform=Norm",
"NeuronType=ReLU",
"NCycles=200000",
"HiddenLayers=N-16",
"TestRate=10",
"TrainingMethod=BP",
"Sampling=1",
"SamplingEpoch=1",
"LearningRate=0.005",
"DecayRate=5e-6",
"ConvergenceImprove=1e-11",
"ConvergenceTests=25000",
"!UseRegulator"
};
```

Pi-

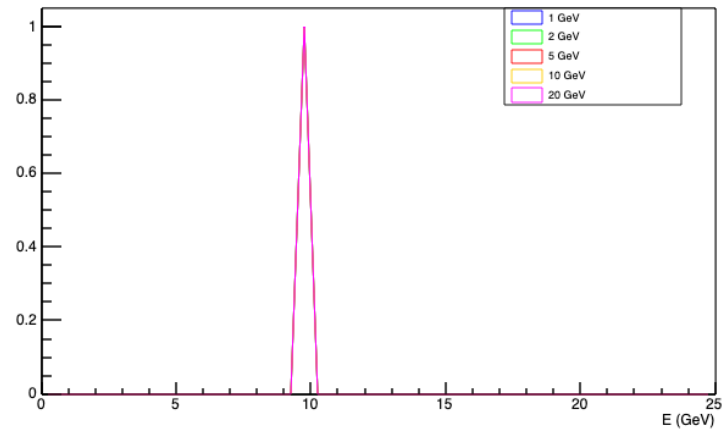
Calibrated Cluster Energy (LD)



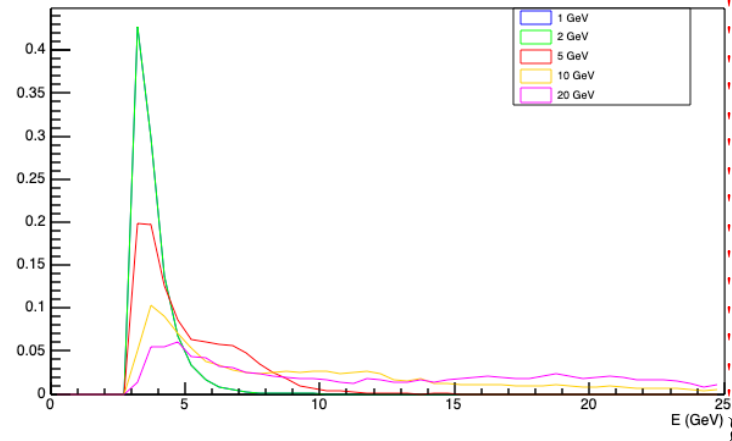
Calibrated Cluster Energy (KNN)



Calibrated Cluster Energy (MLP)



Calibrated Cluster Energy (FDAGA)

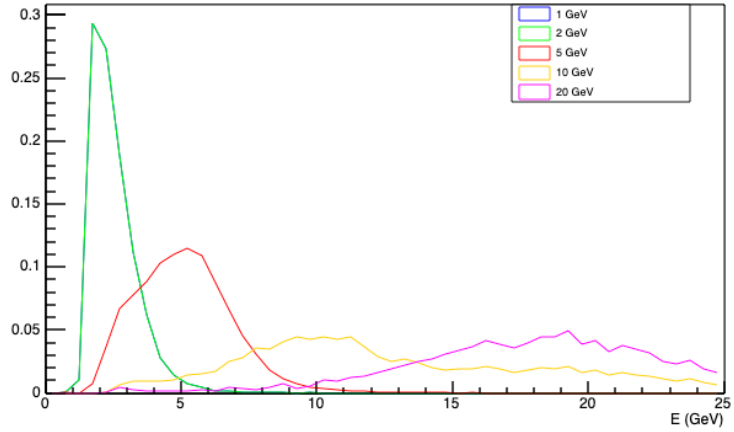


```
eLeadBHCa1,
eLeadBEMC,
eSumScFiLayer1,
eSumScFiLayer2,
eSumScFiLayer3,
eSumScFiLayer4,
eSumScFiLayer5,
eSumScFiLayer6,
eSumScFiLayer7,
eSumScFiLayer8,
eSumScFiLayer9,
eSumScFiLayer10,
eSumScFiLayer11,
eSumScFiLayer12,
eSumImageLayer1,
eSumImageLayer3,
eSumImageLayer6
```

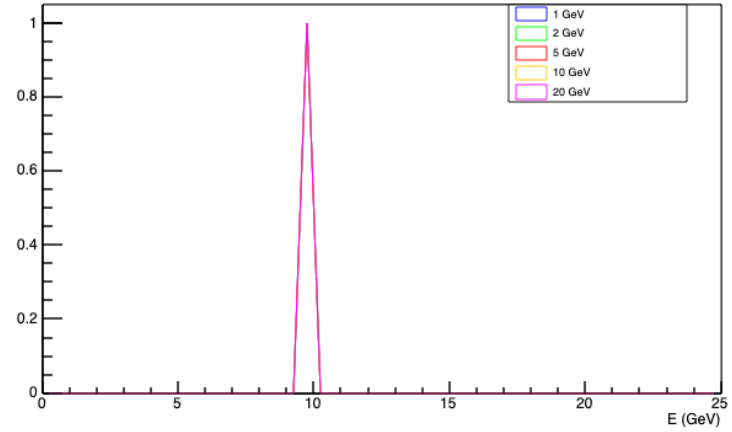
```
// MLP algorithm
mapMethodToOpt["MLP"] = {
"!H",
"!V",
"VarTransform=Norm",
"NeuronType=ReLU",
"NCycles=200000",
"HiddenLayers=N-16",
"TestRate=10",
"TrainingMethod=BP",
"Sampling=1",
"SamplingEpoch=1",
"LearningRate=0.005",
"DecayRate=5e-6",
"ConvergenceImprove=1e-11",
"ConvergenceTests=25000",
"!UseRegulator"
};
```

Pi-

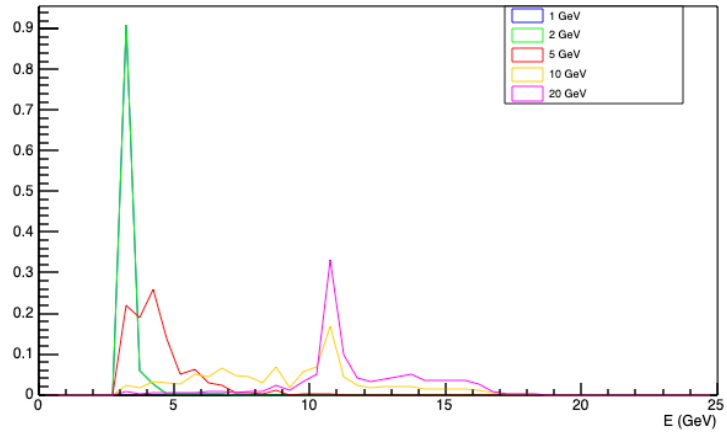
Calibrated Cluster Energy (LD)



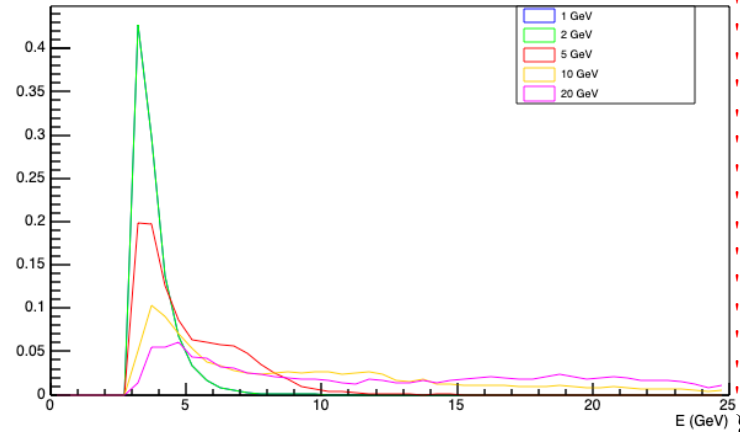
Calibrated Cluster Energy (MLP)



Calibrated Cluster Energy (KNN)



Calibrated Cluster Energy (FDAGA)

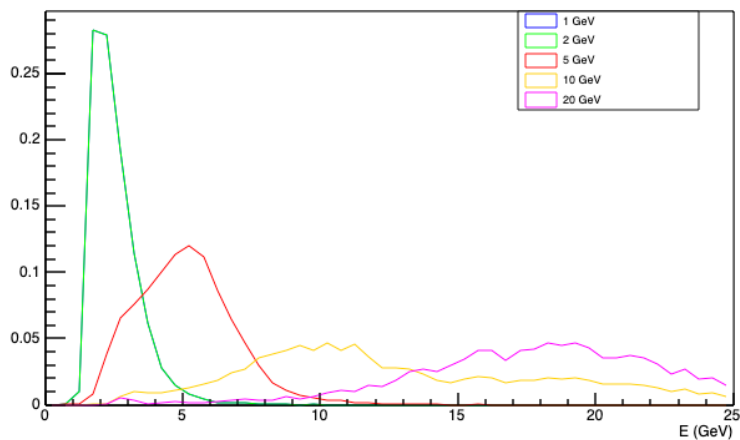


```
eLeadBHCa1,
eLeadBEMC,
eSumScFiLayer1,
eSumScFiLayer2,
eSumScFiLayer3,
eSumScFiLayer4,
eSumScFiLayer5,
eSumScFiLayer6,
eSumScFiLayer7,
eSumScFiLayer8,
eSumScFiLayer9,
eSumScFiLayer10,
eSumScFiLayer11,
eSumScFiLayer12,
eSumImageLayer1,
eSumImageLayer3,
eSumImageLayer4,
eSumImageLayer6
```

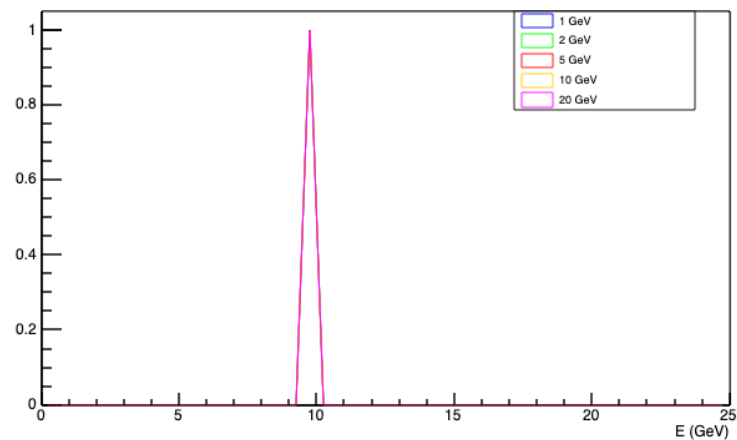
```
// MLP algorithm
mapMethodToOpt["MLP"] = {
"!H",
"!V",
"VarTransform=Norm",
"NeuronType=ReLU",
"NCycles=200000",
"HiddenLayers=N-16",
"TestRate=10",
"TrainingMethod=BP",
"Sampling=1",
"SamplingEpoch=1",
"LearningRate=0.005",
"DecayRate=5e-6",
"ConvergenceImprove=1e-11",
"ConvergenceTests=25000",
"!UseRegulator"
};
```

Pi-

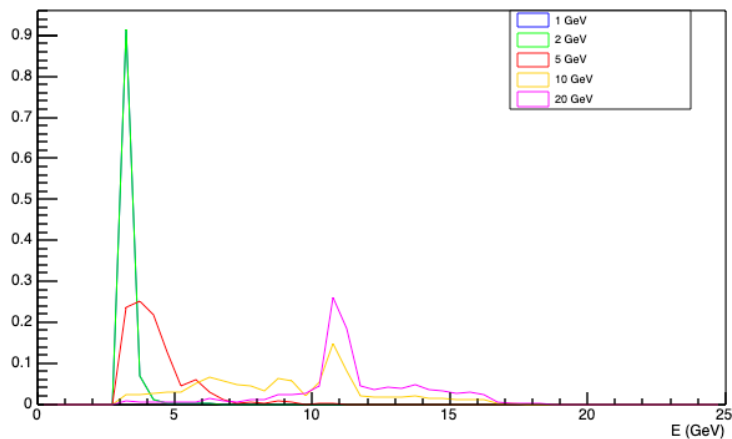
Calibrated Cluster Energy (LD)



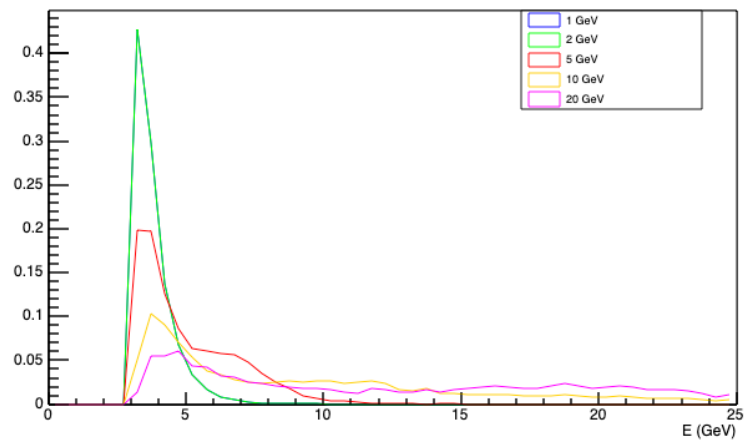
Calibrated Cluster Energy (MLP)



Calibrated Cluster Energy (KNN)



Calibrated Cluster Energy (FDAGA)

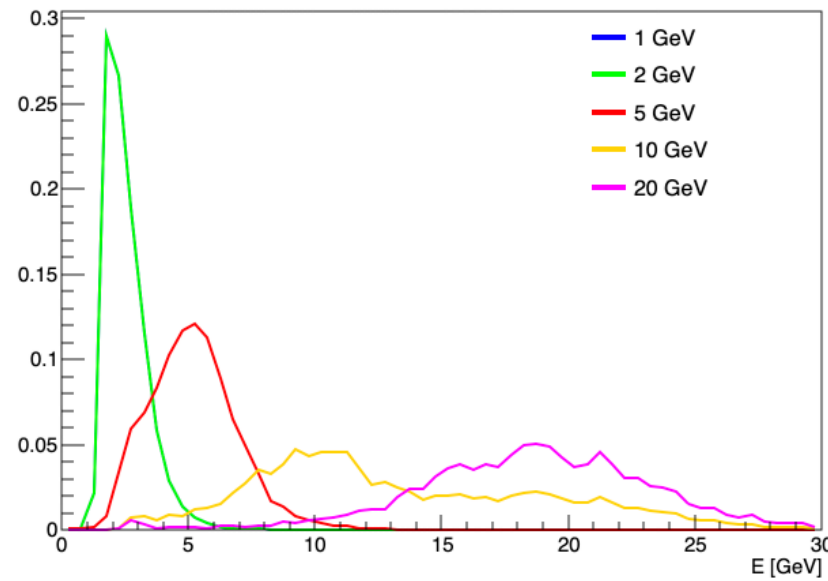


```
eLeadBHCa1,
eLeadBEMC,
eSumScFiLayer1,
eSumScFiLayer2,
eSumScFiLayer3,
eSumScFiLayer4,
eSumScFiLayer5,
eSumScFiLayer6,
eSumScFiLayer7,
eSumScFiLayer8,
eSumScFiLayer9,
eSumScFiLayer10,
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eSumScFiLayer12,
eSumImageLayer1,
eSumImageLayer3,
eSumImageLayer4,
eSumImageLayer6
```

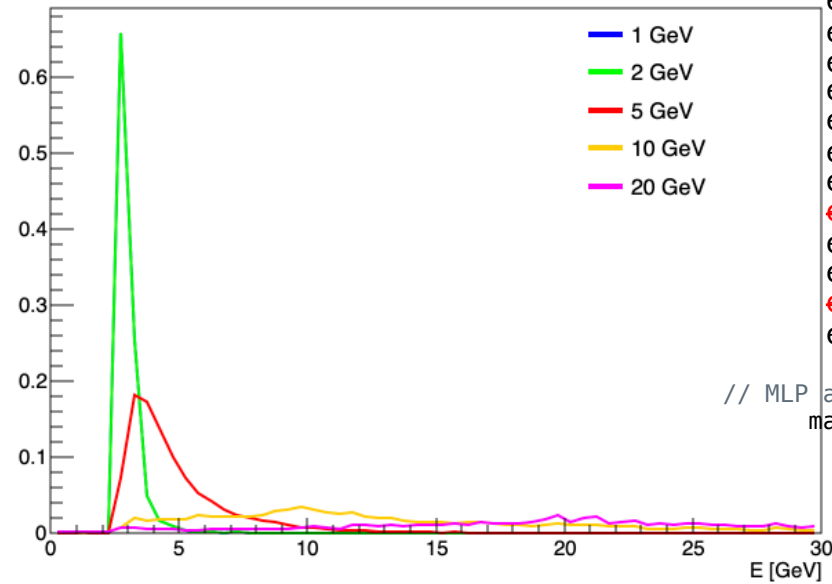
```
// MLP algorithm
mapMethodToOpt["MLP"] = {
"!H",
"!V",
"VarTransform=Norm",
"NeuronType=ReLU",
"NCycles=200000",
"HiddenLayers=N-16",
"TestRate=10",
"TrainingMethod=BP",
"Sampling=1",
"SamplingEpoch=1",
"LearningRate=0.005",
"DecayRate=5e-6",
"ConvergenceImprove=1e-11",
"ConvergenceTests=25000",
"!UseRegulator"
};
```

Pi-

Calibrated Cluster Energy (LD)



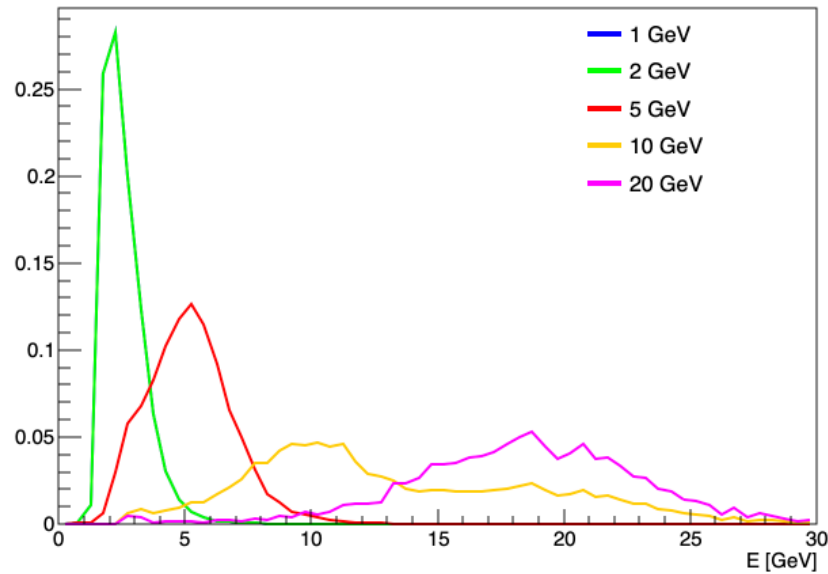
Calibrated Cluster Energy (MLP)



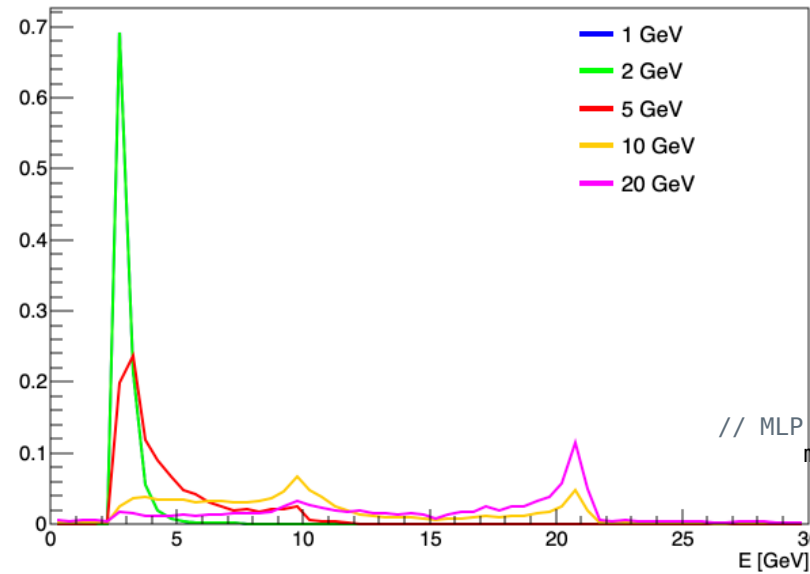
```
eLeadBHCa1,  
eLeadBEMC,  
eSumScFiLayer1,  
eSumScFiLayer2,  
eSumScFiLayer3,  
eSumScFiLayer4,  
eSumScFiLayer5,  
eSumScFiLayer6,  
eSumScFiLayer7,  
eSumScFiLayer8,  
eSumScFiLayer9,  
eSumScFiLayer10,  
eSumScFiLayer11,  
eSumScFiLayer12,  
eSumImageLayer1,  
eSumImageLayer2,  
eSumImageLayer3,  
eSumImageLayer4,  
eSumImageLayer5,  
eSumImageLayer6  
  
// MLP algorithm  
mapMethodToOpt["MLP"] = {  
  "!H",  
  "!V",  
  "VarTransform=Norm",  
  "NeuronType=tanh",  
  "NCycles=20000",  
  "HiddenLayers=N+20",  
  "TestRate=6",  
  "TrainingMethod=BFGS",  
  "Sampling=0.3",  
  "SamplingEpoch=0.8",  
  "ConvergenceImprove=1e-6",  
  "ConvergenceTests=15",  
  "!UseRegulator"  
};
```

Pi-

Calibrated Cluster Energy (LD)



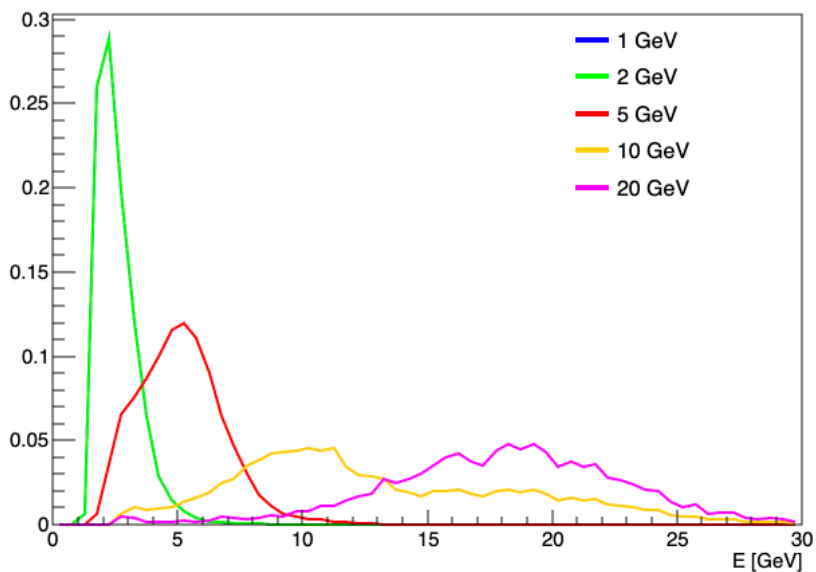
Calibrated Cluster Energy (MLP)



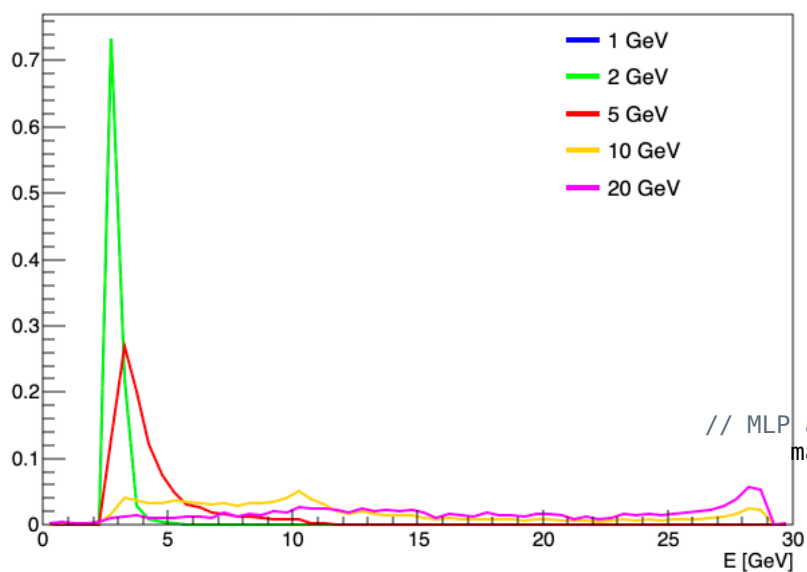
```
eLeadBHCa1,  
eLeadBEMC,  
eSumScFiLayer1,  
eSumScFiLayer2,  
eSumScFiLayer3,  
eSumScFiLayer4,  
eSumScFiLayer5,  
eSumScFiLayer6,  
eSumScFiLayer7,  
eSumScFiLayer8,  
eSumScFiLayer9,  
eSumScFiLayer10,  
eSumScFiLayer11,  
eSumScFiLayer12,  
eSumImageLayer1,  
eSumImageLayer2,  
eSumImageLayer3,  
eSumImageLayer4,  
eSumImageLayer5,  
eSumImageLayer6  
  
// MLP algorithm  
mapMethodToOpt["MLP"] = {  
  "!H",  
  "!V",  
  "VarTransform=Norm",  
  "NeuronType=tanh",  
  "NCycles=20000",  
  "HiddenLayers=N+20",  
  "TestRate=6",  
  "TrainingMethod=BFGS",  
  "Sampling=0.3",  
  "SamplingEpoch=0.8",  
  "ConvergenceImprove=1e-6",  
  "ConvergenceTests=15",  
  "!UseRegulator"  
};
```

Pi-

Calibrated Cluster Energy (LD)



Calibrated Cluster Energy (MLP)

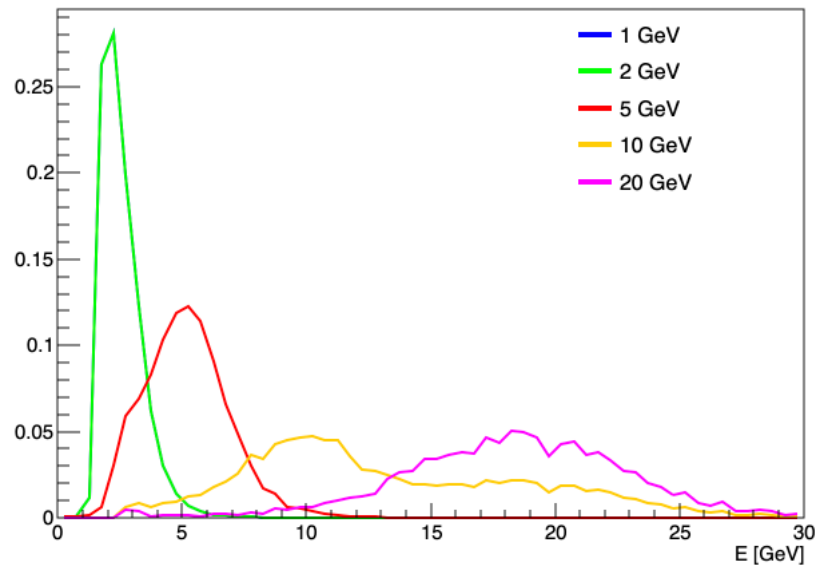


```
eLeadBHCa1,
eLeadBEMC,
eSumScFiLayer1,
eSumScFiLayer2,
eSumScFiLayer3,
eSumScFiLayer4,
eSumScFiLayer5,
eSumScFiLayer6,
eSumScFiLayer7,
eSumScFiLayer8,
eSumScFiLayer9,
eSumScFiLayer10,
eSumScFiLayer11,
eSumScFiLayer12,
eSumImageLayer1,
eSumImageLayer2,
eSumImageLayer3,
eSumImageLayer4,
eSumImageLayer5,
eSumImageLayer6

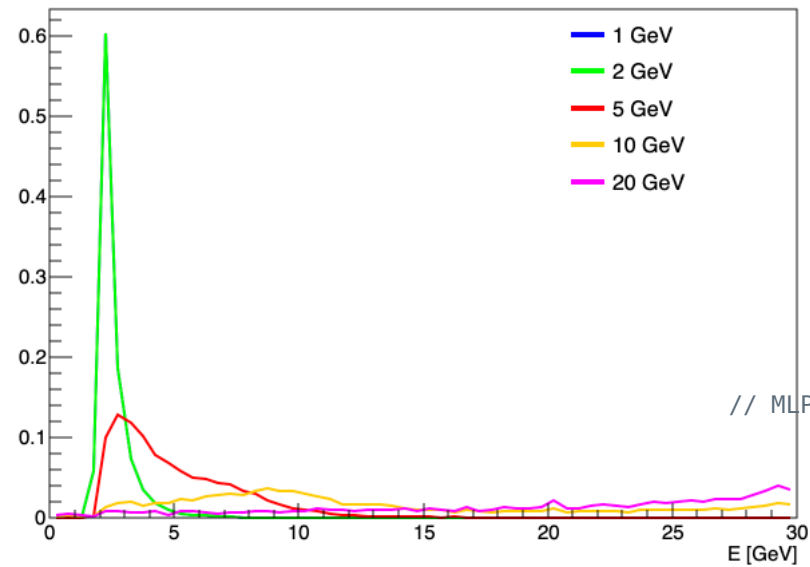
// MLP algorithm
mapMethodToOpt["MLP"] = {
"!H",
"!V",
"VarTransform=Norm",
"NeuronType=tanh",
"NCycles=20000",
"HiddenLayers=N+20",
"TestRate=6",
"TrainingMethod=BFGS",
"Sampling=0.3",
"SamplingEpoch=0.8",
"ConvergenceImprove=1e-6",
"ConvergenceTests=15",
"!UseRegulator"
};
```

Pi-

Calibrated Cluster Energy (LD)



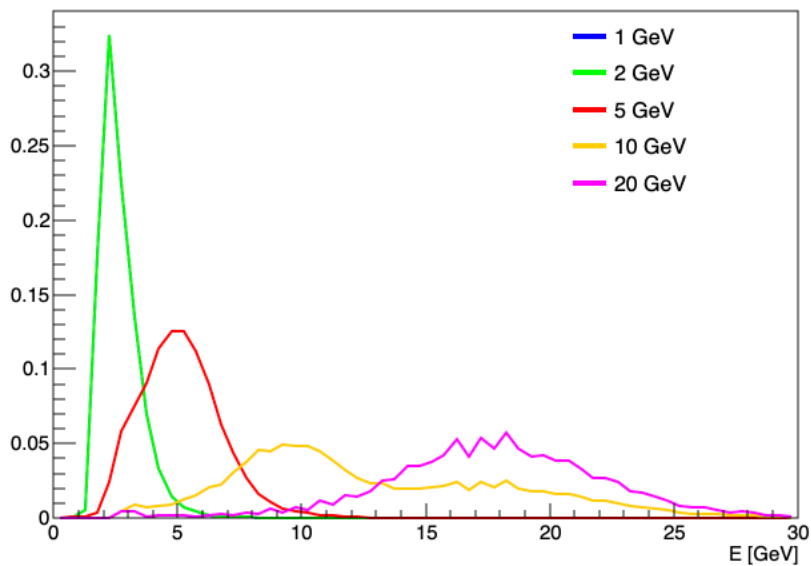
Calibrated Cluster Energy (MLP)



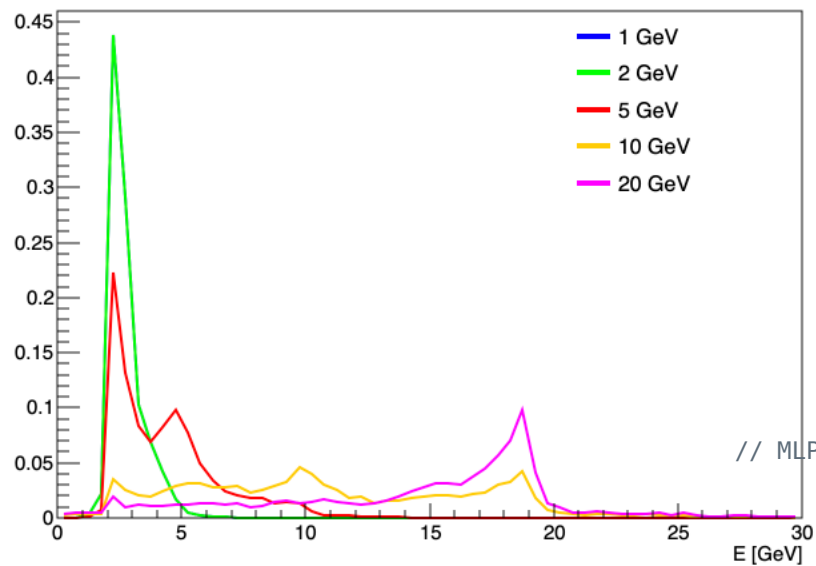
```
eLeadBHCa1,  
eLeadBEMC,  
eSumScFiLayer1,  
eSumScFiLayer2,  
eSumScFiLayer3,  
eSumScFiLayer4,  
eSumScFiLayer5,  
eSumScFiLayer6,  
eSumScFiLayer7,  
eSumScFiLayer8,  
eSumScFiLayer9,  
eSumScFiLayer10,  
eSumScFiLayer11,  
eSumScFiLayer12,  
eSumImageLayer1,  
eSumImageLayer2,  
eSumImageLayer3,  
eSumImageLayer4,  
eSumImageLayer5,  
eSumImageLayer6  
  
// MLP algorithm  
mapMethodToOpt["MLP"] = {  
  "!H",  
  "!V",  
  "VarTransform=Norm",  
  "NeuronType=tanh",  
  "NCycles=20000",  
  "HiddenLayers=N+20",  
  "TestRate=6",  
  "TrainingMethod=BFGS",  
  "Sampling=0.3",  
  "SamplingEpoch=0.8",  
  "ConvergenceImprove=1e-6",  
  "ConvergenceTests=15",  
  "!UseRegulator"  
};
```

Pi-

Calibrated Cluster Energy (LD)



Calibrated Cluster Energy (MLP)

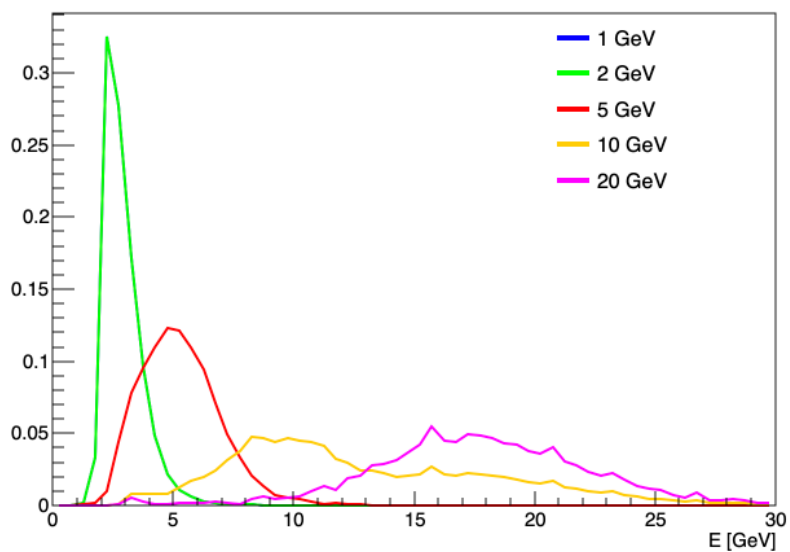


```
eLeadBHCa1,
eLeadBEMC,
eSumScFiLayer1,
eSumScFiLayer2,
eSumScFiLayer3,
eSumScFiLayer4,
eSumScFiLayer5,
eSumScFiLayer6,
eSumScFiLayer7,
eSumScFiLayer8,
eSumScFiLayer9,
eSumScFiLayer10,
eSumScFiLayer11,
eSumScFiLayer12,
eSumImageLayer1,
eSumImageLayer2,
eSumImageLayer3,
eSumImageLayer4,
eSumImageLayer5,
eSumImageLayer6

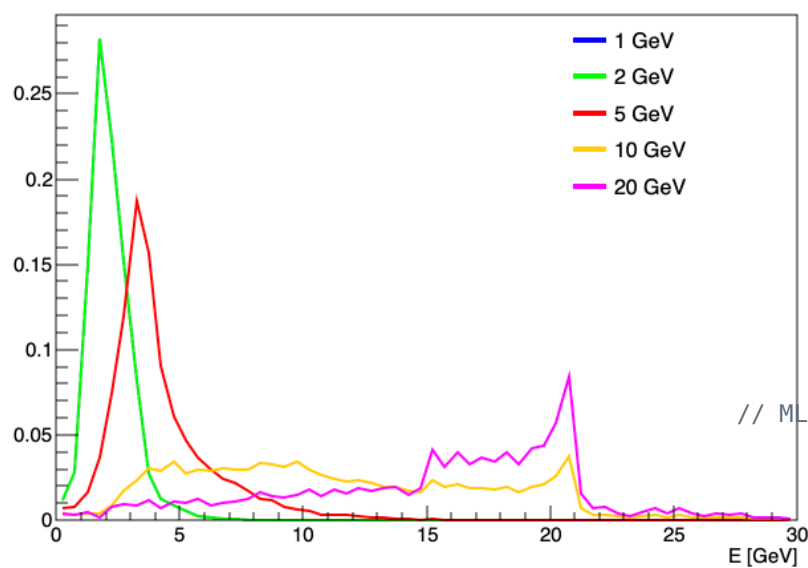
// MLP algorithm
mapMethodToOpt["MLP"] = {
  "!H",
  "!V",
  "VarTransform=Norm",
  "NeuronType=tanh",
  "NCycles=20000",
  "HiddenLayers=N+20",
  "TestRate=6",
  "TrainingMethod=BFGS",
  "Sampling=0.3",
  "SamplingEpoch=0.8",
  "ConvergenceImprove=1e-6",
  "ConvergenceTests=15",
  "!UseRegulator"
};
```

Pi-

Calibrated Cluster Energy (LD)



Calibrated Cluster Energy (MLP)

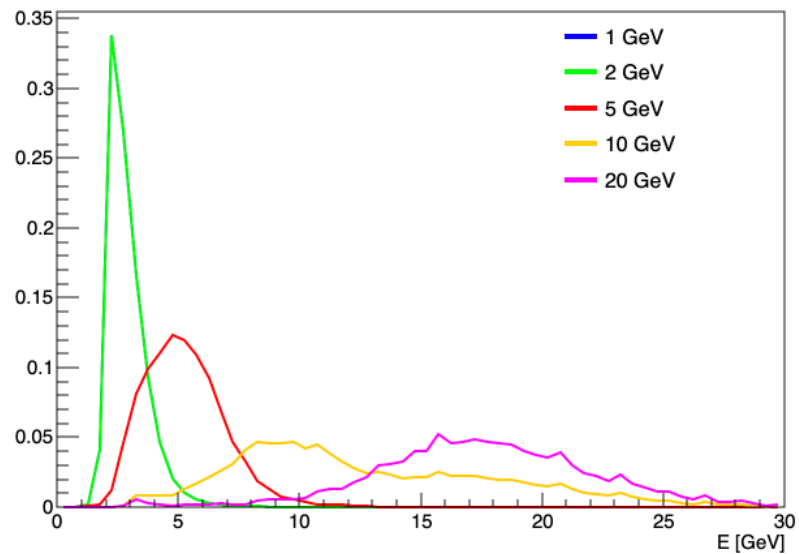


```
eLeadBHCa1,
eLeadBEMC,
eSumScFiLayer1,
eSumScFiLayer2,
eSumScFiLayer3,
eSumScFiLayer4,
eSumScFiLayer5,
eSumScFiLayer6,
eSumScFiLayer7,
eSumScFiLayer8,
eSumScFiLayer9,
eSumScFiLayer10,
eSumScFiLayer11,
eSumScFiLayer12,
eSumImageLayer1,
eSumImageLayer2,
eSumImageLayer3,
eSumImageLayer4,
eSumImageLayer5,
eSumImageLayer6

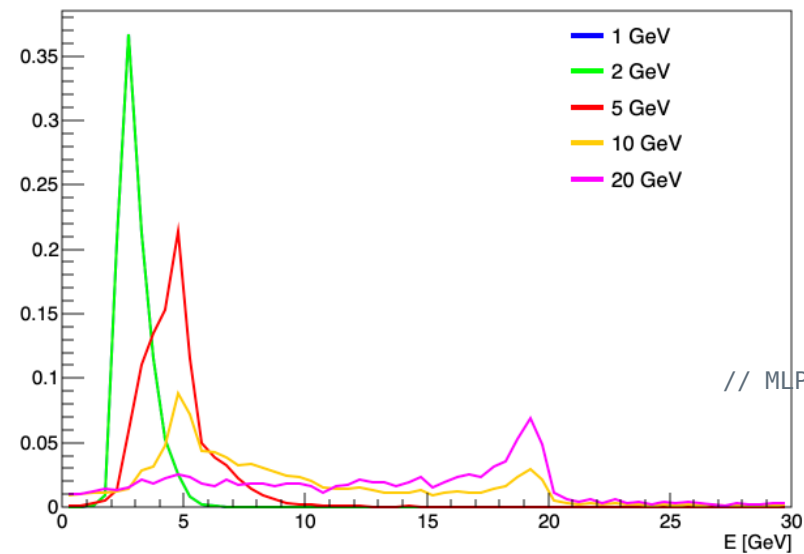
// MLP algorithm
mapMethodToOpt["MLP"] = {
"!H",
"!V",
"VarTransform=Norm",
"NeuronType=tanh",
"NCycles=20000",
"HiddenLayers=N+20",
"TestRate=6",
"TrainingMethod=BFGS",
"Sampling=0.3",
"SamplingEpoch=0.8",
"ConvergenceImprove=1e-6",
"ConvergenceTests=15",
"!UseRegulator"
};
```

Pi-

Calibrated Cluster Energy (LD)



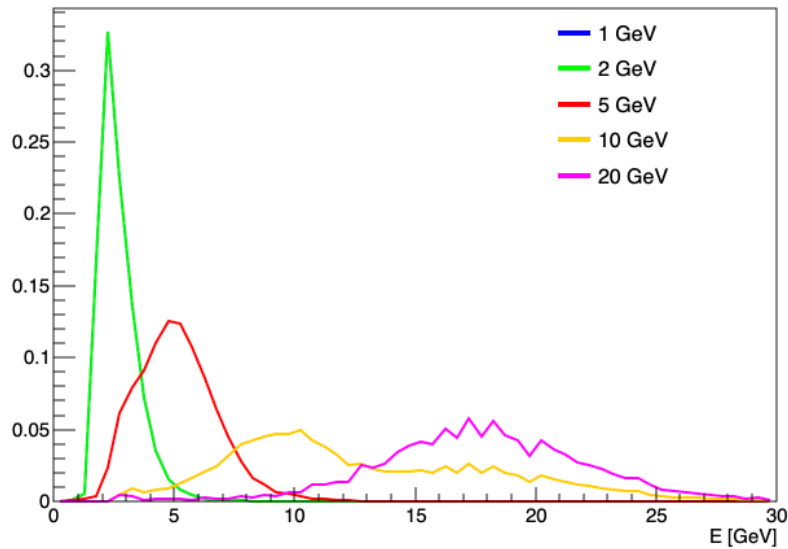
Calibrated Cluster Energy (MLP)



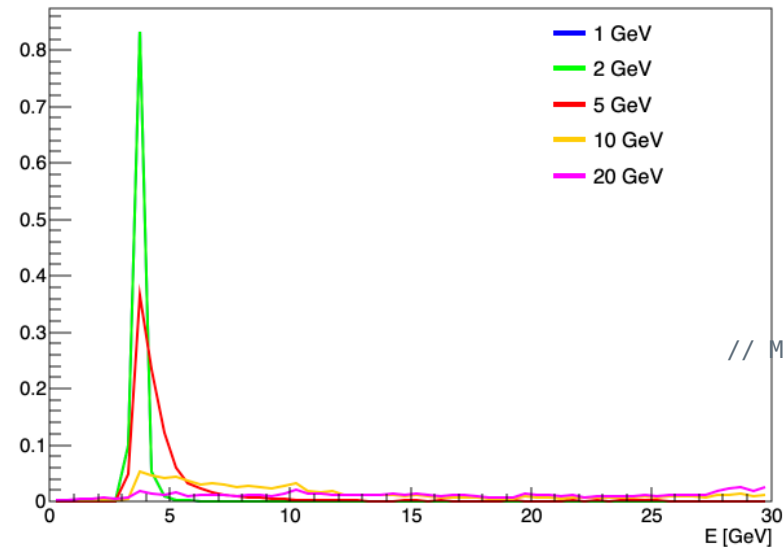
```
eLeadBHCa1,  
eLeadBEMC,  
eSumScFiLayer1,  
eSumScFiLayer2,  
eSumScFiLayer3,  
eSumScFiLayer4,  
eSumScFiLayer5,  
eSumScFiLayer6,  
eSumScFiLayer7,  
eSumScFiLayer8,  
eSumScFiLayer9,  
eSumScFiLayer10,  
eSumScFiLayer11,  
eSumScFiLayer12,  
eSumImageLayer1,  
eSumImageLayer2,  
eSumImageLayer3,  
eSumImageLayer4,  
eSumImageLayer5,  
eSumImageLayer6  
  
// MLP algorithm  
mapMethodToOpt["MLP"] = {  
  "!H",  
  "!V",  
  "VarTransform=Norm",  
  "NeuronType=tanh",  
  "NCycles=20000",  
  "HiddenLayers=N+20",  
  "TestRate=6",  
  "TrainingMethod=BFGS",  
  "Sampling=0.3",  
  "SamplingEpoch=0.8",  
  "ConvergenceImprove=1e-6",  
  "ConvergenceTests=15",  
  "!UseRegulator"  
};
```

Pi-

Calibrated Cluster Energy (LD)



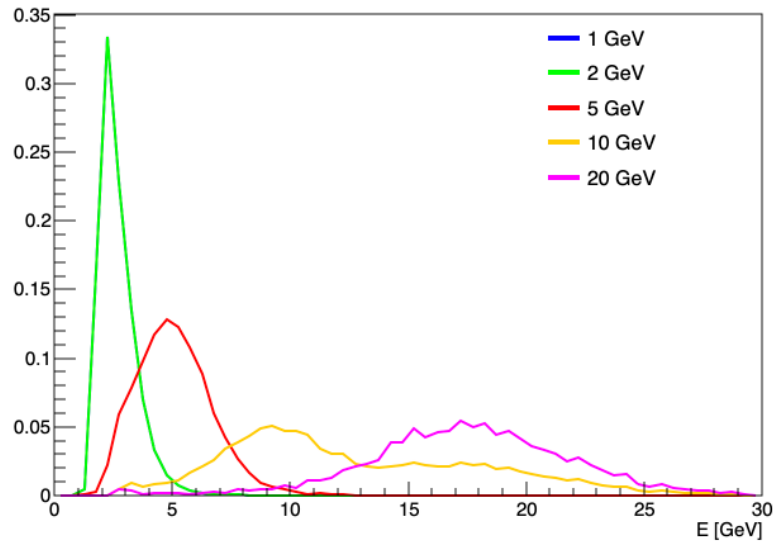
Calibrated Cluster Energy (MLP)



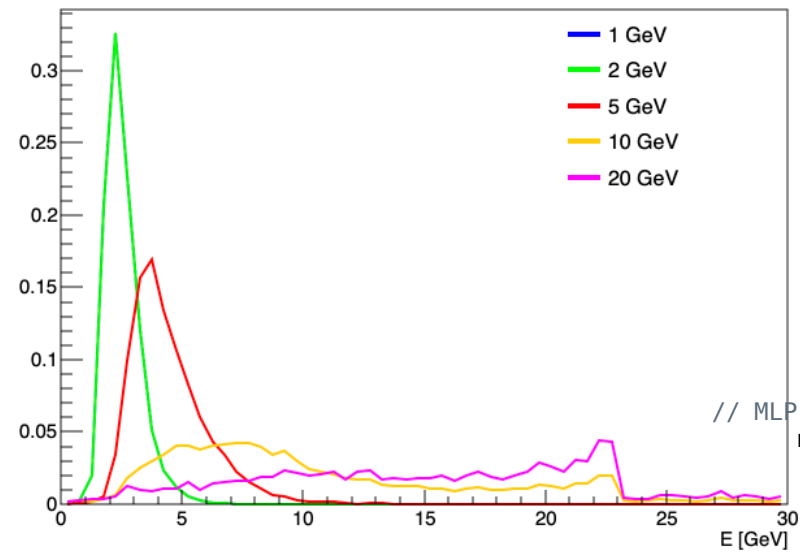
```
eLeadBHCa1,  
eLeadBEMC,  
eSumScFiLayer1,  
eSumScFiLayer2,  
eSumScFiLayer3,  
eSumScFiLayer4,  
eSumScFiLayer5,  
eSumScFiLayer6,  
eSumScFiLayer7,  
eSumScFiLayer8,  
eSumScFiLayer9,  
eSumScFiLayer10,  
eSumScFiLayer11,  
eSumScFiLayer12,  
eSumImageLayer1,  
eSumImageLayer2,  
eSumImageLayer3,  
eSumImageLayer4,  
eSumImageLayer5,  
eSumImageLayer6  
  
// MLP algorithm  
mapMethodToOpt["MLP"] = {  
  "!H",  
  "!V",  
  "VarTransform=Norm",  
  "NeuronType=tanh",  
  "NCycles=20000",  
  "HiddenLayers=N+20",  
  "TestRate=6",  
  "TrainingMethod=BFGS",  
  "Sampling=0.3",  
  "SamplingEpoch=0.8",  
  "ConvergenceImprove=1e-6",  
  "ConvergenceTests=15",  
  "!UseRegulator"  
};
```

Pi-

Calibrated Cluster Energy (LD)



Calibrated Cluster Energy (MLP)

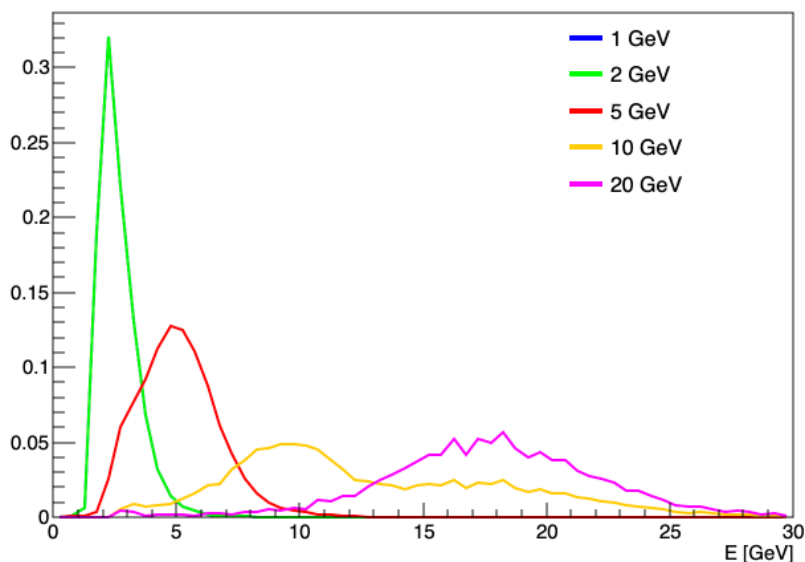


```
eLeadBHCa1,
eLeadBEMC,
eSumScFiLayer1,
eSumScFiLayer2,
eSumScFiLayer3,
eSumScFiLayer4,
eSumScFiLayer5,
eSumScFiLayer6,
eSumScFiLayer7,
eSumScFiLayer8,
eSumScFiLayer9,
eSumScFiLayer10,
eSumScFiLayer11,
eSumScFiLayer12,
eSumImageLayer1,
eSumImageLayer2,
eSumImageLayer3,
eSumImageLayer4,
eSumImageLayer5,
eSumImageLayer6

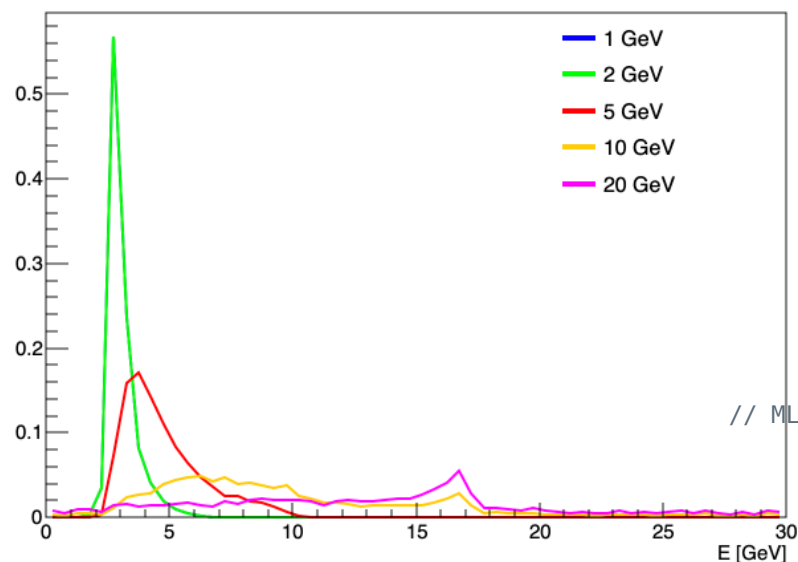
// MLP algorithm
mapMethodToOpt["MLP"] = {
"!H",
"!V",
"VarTransform=Norm",
"NeuronType=tanh",
"NCycles=20000",
"HiddenLayers=N+20",
"TestRate=6",
"TrainingMethod=BFGS",
"Sampling=0.3",
"SamplingEpoch=0.8",
"ConvergenceImprove=1e-6",
"ConvergenceTests=15",
"!UseRegulator"
};
```

Pi-

Calibrated Cluster Energy (LD)



Calibrated Cluster Energy (MLP)

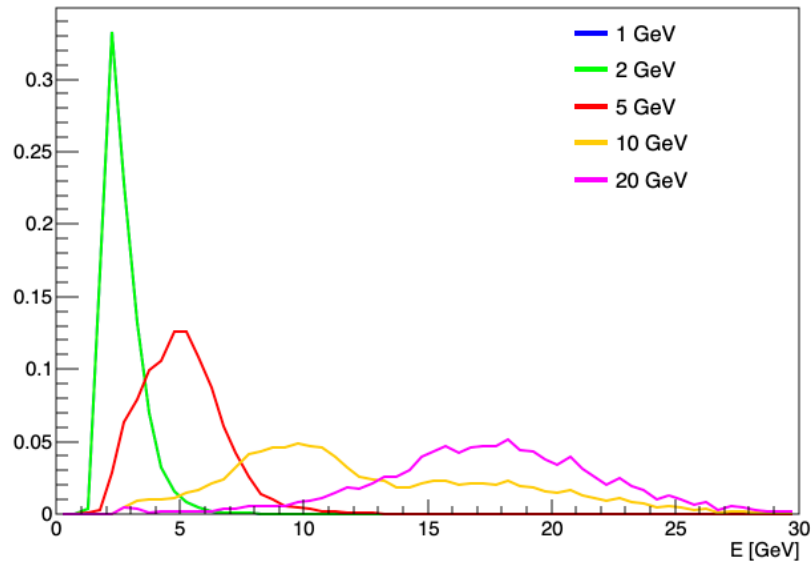


```
eLeadBHCa1,
eLeadBEMC,
eSumScFiLayer1,
eSumScFiLayer2,
eSumScFiLayer3,
eSumScFiLayer4,
eSumScFiLayer5,
eSumScFiLayer6,
eSumScFiLayer7,
eSumScFiLayer8,
eSumScFiLayer9,
eSumScFiLayer10,
eSumScFiLayer11,
eSumScFiLayer12,
eSumImageLayer1,
eSumImageLayer2,
eSumImageLayer3,
eSumImageLayer4,
eSumImageLayer5,
eSumImageLayer6

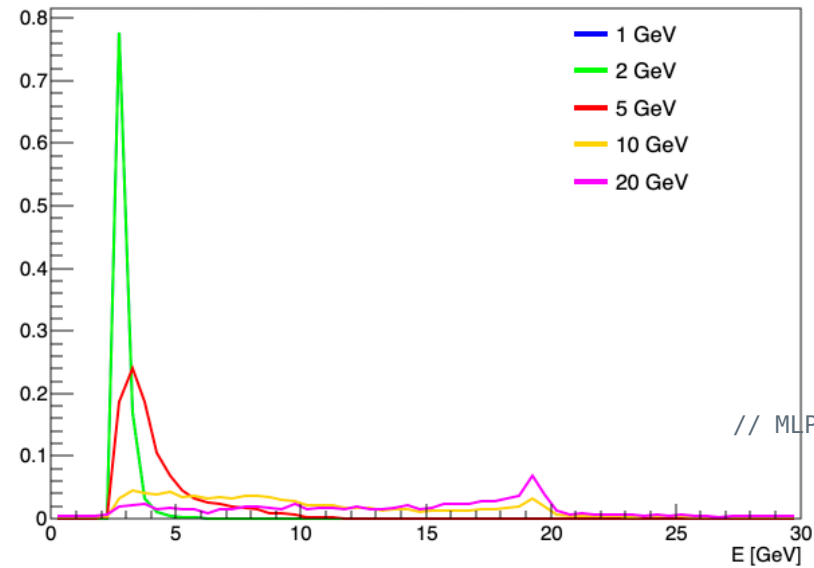
// MLP algorithm
mapMethodToOpt["MLP"] = {
  "!H",
  "!V",
  "VarTransform=Norm",
  "NeuronType=tanh",
  "NCycles=20000",
  "HiddenLayers=N+20",
  "TestRate=6",
  "TrainingMethod=BFGS",
  "Sampling=0.3",
  "SamplingEpoch=0.8",
  "ConvergenceImprove=1e-6",
  "ConvergenceTests=15",
  "!UseRegulator"
};
```

Pi-

Calibrated Cluster Energy (LD)



Calibrated Cluster Energy (MLP)



```
eLeadBHCa1,
eLeadBEMC,
eSumScFiLayer1,
eSumScFiLayer2,
eSumScFiLayer3,
eSumScFiLayer4,
eSumScFiLayer5,
eSumScFiLayer6,
eSumScFiLayer7,
eSumScFiLayer8,
eSumScFiLayer9,
eSumScFiLayer10,
eSumScFiLayer11,
eSumScFiLayer12,
eSumImageLayer1,
eSumImageLayer2,
eSumImageLayer3,
eSumImageLayer4,
eSumImageLayer5,
eSumImageLayer6

// MLP algorithm
mapMethodToOpt["MLP"] = {
  "!H",
  "!V",
  "VarTransform=Norm",
  "NeuronType=tanh",
  "NCycles=20000",
  "HiddenLayers=N+20",
  "TestRate=6",
  "TrainingMethod=BFGS",
  "Sampling=0.3",
  "SamplingEpoch=0.8",
  "ConvergenceImprove=1e-6",
  "ConvergenceTests=15",
  "!UseRegulator"
};
```