Contribution ID: **8** Type: **Lightning talk**

UCluster: Unsupervised clustering for HEP

Friday 23 October 2020 11:55 (5 minutes)

In this talk I will present an unsupervised clustering (UCluster) method where a neural network is used to reduce the dimensionality of the data, while preserving the event information. The reduced representation is then clustered to a k-means friendly space with a suitable loss function. I will show how this idea can be used to unsupervised multi-class classification and anomaly detection.

Primary author: MIKUNI, Vinicius Massami (Universitaet Zuerich (CH))

Presenter: MIKUNI, Vinicius Massami (Universitaet Zuerich (CH))

Session Classification: Workshop

Track Classification: 1 ML for data reduction : Application of Machine Learning to data reduction, reconstruction, building/tagging of intermediate object