



SPEAKER: Eric Metodiev

TITLE: **Exploring the (Metric) Space of Jets with CMS Open Data**

DATE: 19 Jun 2019, 11:00

PLACE: 40/S2-C01 - Salle Curie

ABSTRACT

When are two collider events similar? In this talk, I answer this question by developing a metric between the events based on the earth mover's distance: the “work” required to rearrange one event into the other. With a metric in hand, I will focus on exploring the space of jets using using public collider data from the CMS experiment. Among other applications, our metric allows us to visualize the metric space of jets, extract their correlation dimension, perform jet classification, identify the most and least typical jet configurations, and quantify the impact of detector effects in new ways.