

Machine Learning for SHiP and NEWS experiments

Wednesday, 17 January 2018 12:00 (15 minutes)

Emulsion-based detectors such as ones used for OPERA experiment or planned for SHiP and NEWS experiments may reveal important characteristics of WIMP-like particles. However due to the nature of the emulsion, the signal to noise ratio tend to be rather small and hence might require special reconstruction techniques. Thus advanced data analysis approaches based on machine learning approaches might improve «physical» sensitivity of the experiments. In this talk I'll give brief overview of machine learning techniques that can be applied for dark matter searches in SHiP and NEWS experiments and present current challenges for those experiments both from physical and data analysis points of view.

Presenter: USTYUZHANIN, Andrey (Yandex School of Data Analysis (RU))