Contribution ID: **9**   Type: **not specified**

Too much of a good thing : how to drink new physics from a 40 Tb/s firehose

Monday 17 September 2018 15:15 (30 minutes)

Dr. Vladimir "Vava"Gligorov, Research Scientist at CNRS/LPNHE

Abstract: LHCb is one of the four major experiments at the Large Hadron Collider (LHC) at CERN. It searches for particles and forces beyond our current physics theories, in particular
by making highly precise measurements of the properties of the particles produced in the LHC collisions. Doing so requires analyzing an enormous quantity of data in real time : 8 Tb/s today and rising to 40 Tb/s in 2021. In this talk I will describe LHCb's real-time data analysis in the context of ongoing developments in both computer hardware and AI algorithms, and give some perspectives on the likely future evolution of this real-time analysis.

Bio: I spent my student years being bothered by quantum nonlocality, but eventually discovered that not being able to do mathematics would prove to be a problem if I became an experimental physicist. Now I divide my time between thinking about the myriad contradictions in our theories of the microscopic and macroscopic universe, and building real-time analysis systems to help LHCb probe these contradictions to ever higher precisions. I am also involved in the International Masterclass program and with the work of the Petnica Science Center, trying to make the next generation as much as possible. Life is too short for most social media, but I do tweet @particleist not necessarily about science.

Presenter: Dr GLIGOROV, Vladimir "Vava"

Session Classification: Day 1