

EP Seminar

SPEAKER: Vladimir Gligorov (CERN)

Flavour physics: status and prospects

DATE: Tue 17/06/2014 11:00

PLACE: Main Auditorium

ABSTRACT

The flavour physics sector provides accurate measurements of Standard Model (SM) parameters and probes the existence of new particles at energy scales well beyond the reach of direct detection. In the light of the Tevatron and B-factories legacy, as well as the LHC run I data, I will review what flavour physics tells us today about the SM and about possible physics beyond the Standard Model (BSM).

I will then present the progress anticipated from the LHC run II, as well as from NA62 and Belle II, before discussing the experimental challenges that we need to overcome in order to produce precise flavour measurements in high luminosity environments, such as those to be faced at the LHC Run III and at the HL-LHC. I will conclude by discussing how future flavour measurements will guide direct searches for BSM physics, whether deviations from the SM picture are observed or not.