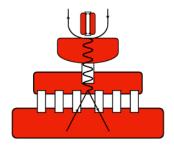
## **International Conference on Kaon Physics 2019**



Contribution ID: 19

Type: Talk

## Anomalies in B (semi)leptonic decays at B factories

Wednesday, 11 September 2019 09:30 (30 minutes)

The Belle II experiment at the SuperKEKB energy-asymmetric  $e^+e^-$  collider is a substantial upgrade of the B factory facility at the Japanese KEK laboratory. The design luminosity of the machine is  $8 \times 10^{35}$  cm<sup>-2</sup>s<sup>-1</sup> and the Belle II experiment aims to record 50 ab<sup>-1</sup> of data, a factor of 50 more than its predecessor. From February to July 2018, the machine has completed a commissioning run; regular operation of SuperKEKB has started in March 2019: the machine has achieved a peak luminosity of  $10^{34}$  cm<sup>-2</sup>s<sup>-1</sup>, and Belle II has recorded a data sample of about 7 fb<sup>-1</sup>. In this presentation we show first results from studying missing energy signatures, such as leptonic and semileptonic B meson decays based on early Belle II data. We report first studies on re-measuring important standard candle processes, such as the abundant inclusive  $B \to X \ell \nu$  and  $B \to D^* \ell \nu$  decays. Furthermore, we will also present an overview of the semileptonic B decays that will be measured in the upcoming years at Belle II and discuss prospects for important B-anomalies like R(D) and R(D<sup>\*</sup>), as well as other tests of lepton flavor universality.

 Primary author:
 GLAZOV, Alexander (DESY)

 Presenter:
 GLAZOV, Alexander (DESY)

 Session Classification:
 ElectroWeak - Standard Model