



Contribution ID: 93

Type: **not specified**

Stau study at the ILC and its implication for the muon $g-2$ anomaly

Monday, July 18, 2022 8:40 PM (20 minutes)

Once all the sleptons as well as the Bino are observed at the ILC, the Bino contribution to the muon anomalous magnetic dipole moment (muon $g-2$) in supersymmetric (SUSY) models can be reconstructed. Motivated by the recently confirmed muon $g-2$ anomaly, we examine the reconstruction accuracy at the ILC with $\sqrt{s} = 500$ GeV. For this purpose, measurements of stau parameters are important. We quantitatively study the determination of the mass and mixing parameters of the staus at the ILC. Furthermore, we discuss the implication of the stau study to the reconstruction of the SUSY contribution to the muon $g-2$. At the benchmark point of our choice, we find that the SUSY contribution to the muon $g-2$ can be determined with a precision of $\sim 1\%$ at the ILC.

In-person or Virtual?

Virtual

Primary author: Dr KAWADA, Shin-ichi (KEK)

Presenter: Dr KAWADA, Shin-ichi (KEK)

Session Classification: Poster Session