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## **Monte Carlos for tau lepton Standard Model and New Physics signatures**

*Monday, December 4, 2023 10:25 AM (25 minutes)*

The measurements of heaviest leptons tau, offer window for precision tests of Standard Model electroweak and medium energy strong interactions. They also are expected to be useful for New Physics signatures. The short lived tau leptons are observed through their decay products. The tau neutrinos escape detection. That complicates phenomenological work, but at the same time enables access to the leptons spin state. The Monte Carlo presentation of theoretical prediction is thus very useful and in some cases possibly even indispensable.

We will present recent developments in Monte Carlo programs KKMC TAUOLA and PHOTOS, which can be used for such purposes. Examples of applications for Standard Model and New Physics signatures, in particular in evaluations of observables sensitive to anomalous electric/magnetic dipole moments in tau lepton productions at Belle energies will be given.

### **Name of collaboration or list of co-authors**

Possible list of coauthors will be provided later

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