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Type: **Parallel Talk**

The strong coupling at the tau mass scale from a new vector isovector spectral function

Thursday, 7 July 2022 15:50 (15 minutes)

We will present results for a new, high precision, extraction of the strong coupling, α_s , at the tau mass scale based on a more precise, non-strange, inclusive vector isovector spectral function. The new spectral function is obtained from a combination of (i) ALEPH and OPAL results for the 2π pion and 4π pion tau decay channels, (ii) recent BaBar results for the $\tau \rightarrow K^- K^0 \nu_\tau$ decay distribution, and (iii) subleading contributions from other hadronic tau decay modes obtained, using CVC, from recent electroproduction data. This new inclusive spectral function has smaller uncertainties and is entirely data-based, with no need for Monte Carlo estimates for the contribution of any exclusive mode.

In-person participation

Yes

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