

XVth Quark Confinement and the Hadron Spectrum



Contribution ID: 67

Type: Oral

New results on the determination of α_s from hadronic tau decay data

Tuesday 20 August 2024 15:00 (30 minutes)

We describe recent developments in the determination of the strong coupling α_s from finite energy sum rule (FESR) analyses of non-strange spectral distributions measured in hadronic τ decay. This includes details of an isovector, vector channel analysis employing an improved version of the relevant spectral function obtained via use of a recent BaBar determination of the $\tau \rightarrow K \bar{K} \nu_\tau$ distribution and improved CVC-based higher-multiplicity distributions obtained using recent electro-production cross-section results. We also use this improved spectral function to explore recently debated systematic issues in past FESR determinations, as well as describing new developments clarifying the understanding of what is actually learned in those determinations, and the modifications this understanding necessitates in the interpretation of those results.

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Session Classification: Light Quarks

Track Classification: B: Light Quarks