Contribution ID : **340** Type : **Oral talk**

Nonperturbative corrections and checking of the hypothesis of vacuum dominance

Wednesday, 30 November 2022 19:30 (15)

In this work we explore the nonpertorbative corrections, especcialy operator dimension which is connected to existing of short strings, basing on our method: processing of experimental data on e^+e^--annihilation into even number of pions (BaBar, CMD-2, OLYA) by constructing the Adler function in two ways (through dispersion representation and through the OPE series), applying the Borel transform, compiling the sum rule, and extracting of nonperturbative corrections. Another task, we check the range of values which coefficient dimension 6, $_6$, can take, considering the hypothesis of vacuum dominance, and a possibility of other intermediate states, contributing to four-quark condensate included in $_6$. How other nonperturbative corrections (C_2 and C_4 or gluon condensate) change when the additional contribution of intermediate states is taken into account? It is shown that values of quark condensate that are not more than 1.2 times higher than the average obtained value, which corresponds to the available data, but not 2 or 1.5 times, are acceptable. In this case, C_4 takes values close to the previously known ones, while C_2 is compatible to zero or negative.

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Session Classification : High Energy Physics: Theory

Track Classification : High energy physics: theory