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Electromagnetic transition form factor and decays of neutral pions

Saturday, 4 June 2016 16:00 (1:30)

Collaboration

Abstract content

In this talk we will discuss two important processes of the low-energy hadron physics: the rare decay $\pi^0 \to e^+e^-$ and the Dalitz decay of π^0.
We briefly summarize experimental and theoretical results on the decay $\pi^0 \to e^+e^-$. The analytical two-loop QED corrections together with the bremsstrahlung contribution beyond the soft-photon approximation are reviewed.
Finally, we present the Two-hadron saturation (THS) scenario for the PVV correlator and apply it to the processes under discussion.

The obtained results can be also used in a theoretical calculation of the hadronic light-by-light scattering contribution to the $g-2$ type experiments.

Primary author(s) : HUSEK, Tomáš (Charles University in Prague)

Co-author(s) : LEUPOLD, Stefan (Uppsala University); KAMPF, Karol (Charles University in Prague); NOVOTNÝ, Jiří (Charles University in Prague)

Presenter(s) : HUSEK, Tomáš (Charles University in Prague)

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