

The full angle-dependence of the four-loop cusp anomalous dimension in QED

Wednesday, October 7, 2020 11:10 AM (18 minutes)

The cusp anomalous dimension is a ubiquitous quantity in gauge theories such as QCD and QED. It governs the infrared behaviour of scattering amplitudes and is a universal ingredient in heavy quark effective theory and soft collinear effective theory. In this talk I present new results for the full angle-dependence of the fermionic quartic Casimir contributions at four loops. These are the first truly non-planar matter dependent contributions and the last missing pieces to obtain the full cusp anomalous dimension in QED.

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