



Sommerfeld Theory Colloquium

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The massless limit of massive gauge fields

One of the simplest ways to make gauge fields massive is to add them a mass by hand”. Intuitively, one could expect that the corresponding massless theory would then be easy to recover. Yet, conventional methods indicate that such a limit is singular. In this talk, we will explore the massless limits of several massive gauge theories. We will identify the source of the apparent discontinuities and show that they are, in fact, simply an artifact of the perturbative approach. Then, we will discuss the consequences of this study on the relations between different gauge fields. Finally, we will conclude with a comment on the latest insights about these theories and their prospects.

Wednesday, 12 June 2024, 16:15h, Room A348, Theresienstr. 37/III

Prof. Slava Mukhanov