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Understanding the Tcc(3875) exotic state

Thursday, 8 June 2023 14:30 (30 minutes)

I would present results based on the papers: PRD 104, 114015, Arxiv 2304.01870,Arxiv 2303.06078, shared with the collaborators: A. Feijoo, W.H. Liang, I. Vidana, L.R. Dai, L. Abreu, M. Albaladejo and J. Nieves.
I would show how the Tcc appears naturally within an extension of the local Hidden gauge approach, with the correct mass and width and isospin I=0 nature. Then expose a general approach to determine the compositeness of the Tcc as a molecular structure from the D0 D+ *and D+ D*0 channels, or otherwise, using the data of the D0 D0 pi+ mass distribution. Then report on the correlation function of the D0 D+ *and D+ D*0 channels, and the inverse problem on how one can determine the properties of the Tcc from the measurement of the D0 D+ *and D+ D*0 correlation functions.

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