

Lattice 2024



Contribution ID: 49

Type: **Talk**

Dilaton Forbidden Dark Matter

Friday, 2 August 2024 12:35 (20 minutes)

We take a dilaton EFT that has been successfully used to analyze lattice data for confining gauge theories near the conformal window boundary, and show that it can form a viable description of composite dark matter. The EFT contains a dilaton that is slightly heavier than a multiplet of stable pNGBs, and naturally implements the forbidden dark matter mechanism for relic density generation. Our framework therefore provides a novel and concrete way to connect recent developments in dark matter studies with lattice measurements in specific underlying gauge theories. Our presentation is based on arXiv:2404.07601.

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Session Classification: Particle physics beyond the Standard Model

Track Classification: Particle Physics Beyond the Standard Model