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Positivity bounds, UV states and SMEFT

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Lorentz invariance, locality, unitarity and analyticity are some of the most fundamental properties of S-matrix/quantum field theory. I will explain why these fundamental principles can impose positivity bounds on the Wilson coefficients of the EFT, and how to obtain the strongest bounds in the forward limit and beyond. These positivity bounds are then used to constrain the parameter space of the Standard Model effective field theory (SMEFT).

Primary author: Prof. ZHOU, Shuang-Yong (USTC)

Co-author: ZHANG, Cen

Presenter: Prof. ZHOU, Shuang-Yong (USTC)

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