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## Loops corrections for positivity bounds

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Positivity bounds, derived from fundamental S-matrix principles such as unitarity and analyticity, can impose important constraints on the space of effective field theories (EFTs). While these bounds have been extensively studied at tree level for various weakly coupled EFTs, incorporating loop corrections is crucial for extending their applicability to more general models and scenarios. We examine several aspects of one-loop effects in positivity bounds for a massive scalar EFT and beyond, using various numerical methods to address key challenges such as nonlinear optimization, strong-coupling bounds and scale dependence.

## Secondary track

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