

Revisiting SN1987A constraints on dark photon and Z'

Saturday, 29 November 2025 15:50 (10 minutes)

We discuss the dark photon and Z' emission from supernova. We evaluate the production amplitude for the dark photon and Z' via nucleon bremsstrahlung process $NN \rightarrow NNZ'$. Finally, We derive the SN1987A constraints on dark photon and Z' from the stellar cooling argument.

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Session Classification: 茶歇 + 展报 / Tea Break+Poster