

Phenomenology 2021 Symposium



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Glueball dark matter in $SU(N)$ lattice gauge theory

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The glueballs in the $SU(N)$ Yang-Mills theory are theoretically the most natural among composite dark matter scenarios. In this work, we evaluate the interglueball potential in $SU(N)$ lattice gauge theories using the HALQCD method and derive the glueball dark matter scattering cross section, and then constrain the scale parameter of the gauge theory from the observational data.

Summary

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