

# The 2024 Chengdu Symposium on Particle Physics and Cosmology: Phase Transitions, Dark Matter and Experimental Probes (CPCS 2024)

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## Lattice simulation of SU(2) dark glueball

*Sunday, 29 September 2024 10:00 (30 minutes)*

The presence of dark matter, a fundamental cosmic constituent constituting a significant portion of the universe's mass-energy content, has captivated the scientific community for decades. Recently, there has been a growing fascination with strongly interacting dark matter. We will focus on the intrinsic appeal of SU(2) glueballs as potential dark matter candidates and their implications for particle physics. A detailed exposition of mass, wave function analyses, and interaction potential offers fresh insights into the nature of SU(2) glueballs and their potential role in elucidating the mysteries of dark matter.

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