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## A hidden sector and the 750-GeV diphoton resonance

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we revisit the model of a CP-even singlet scalar resonance, where the resonance appears as the lightest composite state made of scalar quarks participating in hidden strong dynamics. We show that the model can consistently explain the excess of diphoton events with an invariant mass around 750 GeV reported by both the ATLAS and CMS experiments. Due to inseparability of the dynamical scale and the mass of the resonance, the model also predicts signatures associated with the hidden dynamics such as leptons, jets along with multiple photons at future collider experiments. We also associate the TeV-scale dynamics behind the resonance with an explanation of dark matter.

### Summary

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