

XVth Quark Confinement and the Hadron Spectrum



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Mixing of heavy and light quarks in charmonium and light mesons

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We study the system of light mesons, charmonium and glueballs in the flavour singlet channels where they can mix. We use lattice QCD simulations with an almost physical charm quark and three degenerate light quarks for two values of the pion mass ($m_\pi \approx 420, 800$ MeV). Thanks to a variational basis which includes mesonic operators with profiles in distillation space, Wilson loops and two-pion operators we detect and show results of their mixing.

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