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Structure of heavy mesons in the light-front quark model

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In this talk, I will discuss our efforts to explain the mass gaps and decay constants of the ground state and radially excited state heavy mesons in the light-front quark model. We highlight the importance of mixing 1S and 2S harmonic oscillator basis as the trial wave function in the variational analysis. A small mixture is needed to explain available experimental and lattice data. The obtained light-front wave function is then used to investigate the structure of heavy mesons further.

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