Continuum-coupling effects in heavy meson spectroscopy and structure

Summary

Continuum coupling effects can play an important role in heavy meson spectroscopy and structure, especially in the case of mesons close to open- or hidden-flavor meson-meson decay thresholds. I will discuss some of the most relevant cases, including the X(3872) and the χ b(3P) system, and show how the presence of these thresholds can induce mass shifts with respect to naïve QM predictions for the bare meson masses. I will also discuss how continuum coupling effects can be introduced in the QM formalism to calculate some of these mesons' main decay modes.

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