

# Continuum-coupling effects in heavy meson spectroscopy and structure

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## 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  $X(3872)$  [1,2], the  $\chi_{b(3P)}$  system [2,3] and the  $D_{s0}^*(2317)$  [4], and show how the presence of these thresholds can induce mass shifts with respect to naive 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.

## References

- [1] J. Ferretti, G. Galatà and E. Santopinto, Phys. Rev. C 88, 015207 (2013).
- [2] J. Ferretti, G. Galatà and E. Santopinto, Phys. Rev. D 90, 054010 (2014).
- [3] J. Ferretti and E. Santopinto, Phys. Rev. D 90, 094022 (2014).
- [4] J. Ferretti and E. Santopinto, arXiv: 1506.04415.

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