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Hindered M1 Radiative Decays

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Throughout the literature, phenomenological models have been unsuccessful in pinning down the heavy quarkonia hindered M1 radiative transitions (i.e., those radiative transitions between states with different principal quantum numbers that require one of the quarks to flip-spin) and yield predictions that are spread over a vast range.

In this talk, we will learn how to accurately and precisely predict these classes of decays by utilising lattice NRQCD, compare to the phenomenological calculations, and then show how this work is relevant for the experimental hyperfine splitting.

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