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Towards direct access to the charmonium decay parameters

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The width of a hadronic decay to two particles can be studied from ratios of three and two point functions if the initial and final states in the matrix elements are degenerate. In our work, we rederive this method to study the vector-charmonium decay $\psi(3770) \rightarrow \bar{D}D$, we discuss the specific systematics that we found, and present preliminary results. Furthermore, we study the width as a function of the charm-quark mass, adjusting the $\bar{D}D$ energy with twisted boundary conditions, and we compare to the predictions from quark models.

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