

XXV International Baldin Seminar on High Energy Physics Problems  
"Relativistic Nuclear Physics and Quantum Chromodynamics"



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on High Energy Physics Problems  
*Relativistic Nuclear Physics & Quantum Chromodynamics*  
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## Hidden-charm strong decays of charmonium-like state $Y(4230)$

*Thursday, 21 September 2023 11:20 (20 minutes)*

We have studied hidden-charm strong decays of the charmonium-like resonant state  $Y(4230)$  within the framework of a confined quark model by interpreting the resonance as a four-quark state with molecular-type interpolating current. The strong decay of  $Y$  into a vector and a scalar resonance, with the latter decaying, subsequently to a pair of charged pseudoscalar states, has been investigated. We have calculated the partial widths of the strong decays  $Y \rightarrow \pi^+ \pi^- J/\Psi$  and  $Y \rightarrow K^+ K^- J/\Psi$ , and their branching ratio, which is recently determined by the BESIII Collaboration. The estimated proportion of branching and the calculated partial strong decay widths are in reasonable agreement with the most recent experimental results.

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