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## Decay processes of 🛛 ( 2170 ) to kaonic resonances

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We have recently studied the strong decays of  $\varphi(2170)$  to final states involving the kaonic resonances K(1460), K1(1270) and K1(1400), on which experimental data have been extracted by the BESIII Collaboration. The formalism developed is based on interpreting  $\varphi(2170)$  and K(1460) as states arising from three-hadron dynamics. For K1(1270) and K1(1400) we investigate different descriptions, such as a mixture of states belonging to the nonet of axial resonances, or the former one as a state originating from the vector- pseudoscalar dynamics. The ratios among the partial widths of K+(1460)K-, K1+(1400)K- and K1+(1270)K- obtained are compatible with the experimental results, reinforcing the three-body nature of  $\varphi(2170)$ . Within our formalism, we can also explain the suppressed decay of  $\varphi(2170)$  to K\*(892)K<sup>-</sup>\*(892), as found by the BESIII Collaboration. Furthermore, our results can be useful in clarifying the properties of K(1460), K1(1270) and K1(1400) when higher statistics data would be available.

## Collaboration

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