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# MAGIC

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## Science of the Cosmos

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### Hybrid Mesons in Strong Decays

In recent years, numerous new particles have been discovered in experiments around the world, many of which are not yet fully characterized. One way to study the structure of hadrons is through their decay rates. The main objective of this work is to provide evidence that can help in the search for exotic states, called hybrid mesons. On this way, from the constituent gluon model, we calculate the decay rates of these exotics into two mesons. In particular for the resonances  $\pi_1(1400)$  and  $\pi_1(1600)$ , which are compared to experimental results looking for evidence of the existence of hybrid mesons.

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