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## $D^+ \rightarrow K^- p^+ p^+$ and the elastic $K p$ amplitude

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### **Abstract content**

Heavy-meson decays are important sources of information about scalar resonances. Hopefully, they may also shed light into meson-meson scattering amplitudes. In a recent work, our group has studied the low-energy sector of the reaction  $D^+ \rightarrow K^- p^+ p^+$  by means of chiral  $SU(3) \times SU(3)$  effective lagrangians, which include scalar resonances and allow a consistent treatment of the primary weak vertex. In the framework of the quasi two-body approximation, the decay amplitude involves a non-resonant background superimposed to processes in which the outgoing mesons interact before reaching the detector. As  $p^+p^+$  scattering can be safely neglected in this problem, final state interactions involve just the elastic  $K p$  amplitude. We discuss whether and how information about  $K p$  scattering at low energies can be extracted from  $D^+$  decays.

### **Summary**

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