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## $DK$ and $D\bar{K}$ scattering and the $D_{s0}^*(2317)$ from lattice QCD

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I will discuss some recent lattice QCD calculations of  $DK$  and  $D\bar{K}$  scattering, relevant for the enigmatic  $D_{s0}^*(2317)$ , with light-quark masses corresponding to  $m_\pi = 239$  MeV and  $m_\pi = 391$  MeV. The S-waves contain interesting features including a near-threshold  $J^P = 0^+$  bound state in isospin-0  $DK$ , corresponding to the  $D_{s0}^*(2317)$ , with an effect that is clearly visible above threshold, and suggestions of a  $0^+$  virtual bound state in isospin-0  $D\bar{K}$ . The S-wave isospin-1  $D\bar{K}$  amplitude is found to be weakly repulsive. There is a deeply bound  $D^*$  vector resonance, but negligibly small P-wave  $DK$  interactions are observed in the energy region considered; the P and D-wave  $D\bar{K}$  amplitudes are also small.

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G. K. C. Cheung, C. E. Thomas, D. J. Wilson, G. Moir, M. Peardon, S. M. Ryan,  
for the Hadron Spectrum Collaboration

**Primary author:** THOMAS, Christopher (University of Cambridge)

**Presenter:** THOMAS, Christopher (University of Cambridge)

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