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## Charmonium-like resonances in coupled $D\bar{D} - D_s\bar{D}_s$ scattering

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The first lattice study of coupled-channel  $D\bar{D}$  and  $D_s\bar{D}_s$  scattering is presented. The partial waves  $l = 0, 2$  are investigated on CLS ensembles. The resulting scattering matrix suggests the existence of three charmonium-like states with  $J^{PC} = 0^{++}$  in addition to  $\chi_{c0}(1P)$ : a  $D\bar{D}$  bound state just below threshold, a broader resonance likely related to  $\chi_{c0}(3860)$  and a narrow resonance just below  $D_s\bar{D}_s$  with a large coupling to this threshold. The partial wave  $l = 2$  features a  $J^{PC} = 2^{++}$  resonance likely related to  $\chi_{c2}(3930)$ . We work with several assumptions, such as the omission of  $J/\psi\omega, \eta_c\eta$  and three-particle channels.

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