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## Towards quark mass dependence of $T_{cc}$

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I will present how the  $DD$  scattering amplitude and the pole positions in  $T_{cc}$  channel vary with the charm and the light-quark masses. This will be based on our lattice results for five charm quark masses and results by other groups for various light-quark mass. Effective Field Theory for  $DD$  interaction mediated by pions implies attraction at short range and a slight repulsion at long range mediated by one-pion exchange for  $m_{\pi} > m_D^* - m_D$ . The pion exchange manifests as a left-hand cut in the partial wave projected scattering amplitude, which is accounted for in our analysis.  $T_{cc}$  pole transitions between a resonance, virtual and bound state as charm and light quark masses are varied.

**Primary author:** PRELOVSEK, Sasa (University of Ljubljana)

**Co-authors:** NEFEDIEV, Alexey (Jozef Stefan Institute); MADANAGOPALAN, Padmanath (The Institute of mathematical Sciences, Chennai); COLLINS, Sara (University of Regensburg)

**Presenter:** PRELOVSEK, Sasa (University of Ljubljana)

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