Discussion teaser

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Milestones of B3 Application

- → Role of one-pion exchange for doubly heavy molecules
- → Adaption of $B^{(*)}\bar{B}^{(*)}$ study to $D^{(*)}\bar{D}^{(*)}$
- → TS mechanism and open threshold phenomena for a broad s-range in e^+e^- annihilations.
- → Dynamical study of the double heavy pentaquark states
- → $\{D_2, D_1\}$-$\{\bar{D}, \bar{D}^*\}$ scattering including OPE
- → Spin partners of the P_c states
- → Extension to hidden and open strangeness (K exchange?)
- → TS mechanism and pentaquark signals
- → Study of Pion mass dependence

Milestones of B3 Application

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done | in progress | to be done

→ Role of one-pion exchange for doubly heavy molecules

→ Adaption of $B^{(*)}\bar{B}^{(*)}$ study to $D^{(*)}\bar{D}^{(*)}$

→ TS mechanism and open threshold phenomena for a broad s-range in e^+e^- annihilations.

→ Dynamical study of the double heavy pentaquark states

→ $\{D_2, D_1\}$-$\{\bar{D}, \bar{D}^*\}$ scattering including OPE (L.v.D.+Beijing)

→ Spin partners of the P_c states

→ Extension to hidden and open strangeness (K exchange?)

→ TS mechanism and pentaquark signals

→ Study of Pion mass dependence

→ $B^{(*)}\bar{B}^{(*)}$ scattering to NLO (S.K./J.T.C.+Bochum)

→ Long ranged static $\bar{Q}Q$ pot. (N.A.+X.-K.D.+F.-K.G.+B.K.)

Open issues that came up

- → Weinberg crit.: Is subtraction of other (higher and lower) channels systematic? (V.B./M.D.)
- → How to deal with various minima in fits? (A.N.)
- → Proper assessment of poles on various sheets? (A.N.)
- → How to include data sets of very different quality? (A.N.)
- → How to understand static $Q\bar{Q}$ potentials? (Q.Z.)
- → NLO potentials pert. or non-pert.? (A.G.)
- → What can be learned from Coulomb-B.S.? (Z.H.Z)