

# J/psi with NPS/CPS : transverse proton spin asymmetries

(Erik Wrightson, Tyler Schroeder, Marie Boër)

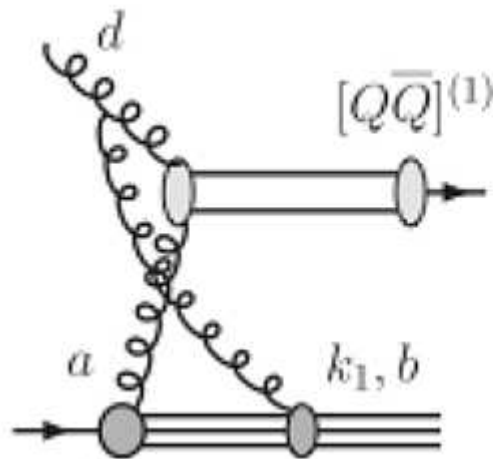
Goal: J/psi production mechanism near threshold

2 gluons, 3 gluon exchange ? Pomeron ?

What did we learned from pp collisions :

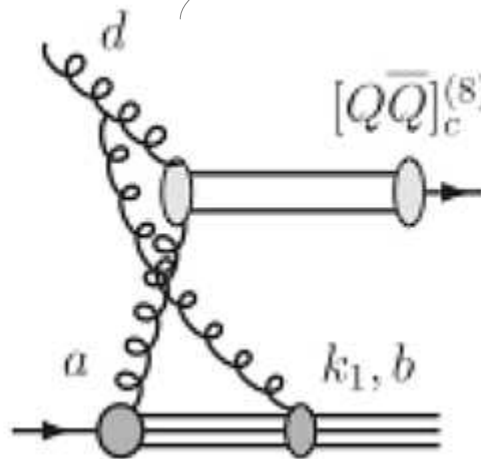
Sensitive to production mechanism: only color singlet produce non zero  $A_N$

Color singlet

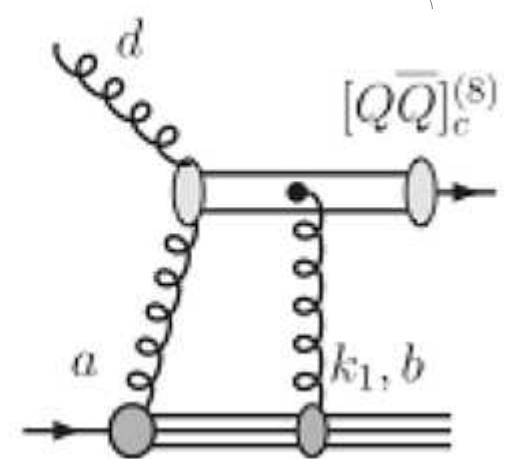


Initial state interaction

Color octet



Initial state interaction



Final state interaction

Similar effect expected in exclusive reaction near threshold ?

- Energy dependent production mechanisms
- Expected 3 gluon exchange dominance at JLab

\* Using model Brodsky & al. for JLab projections

Generator tuned for JLab & EIC energies with « manual » tuning for dominant cross section, « user choice » parametrizations (pdf...)

(credit : Tyler Schroeder, summer student REU)

Erik's work this year: updating this code and tuning for JLab projections, simulations

Our goals

- similar setup as for TCS
- use of new target magnet : extended acceptance at large angles
- realistic projection to see if an experiment can be done

