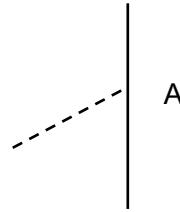


In the following solid lines represent quarks or antiquarks and dotted lines represent gluons. Time increases upward.

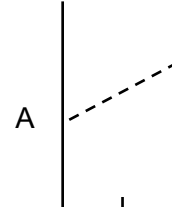
1. The gluon has colors $r\bar{g}$.

What quark or antiquark might it couple to at event A?
(2 possibilities)



2. The gluon has colors $b\bar{r}$.

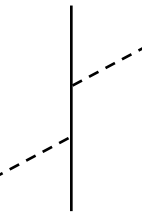
What quark or antiquark might it couple to at event A?
(2 possibilities)



3. The in-state is a meson with quark colors $g\bar{g}$ (left-right).
The quark colors in the out-state are $b\bar{b}$. What are the colors
of the gluon?



4. Suppose the in- and out- states are the same as in 3 but
the diagram is flipped over. What are the colors
of the gluon?



5. The in-state is a baryon with quark colors rgb (left-right).
Label the colors of all particles before and after each vertex.

