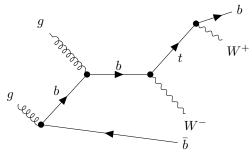
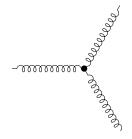


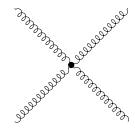
(a) Doubly-resonant diagram.



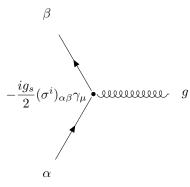
(b) Singly-resonant diagram.



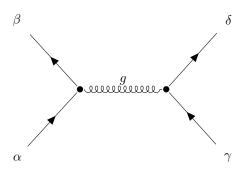
(a) Triple-boson vertex.



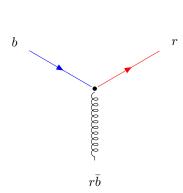
(b) Tetra-boson vertex.



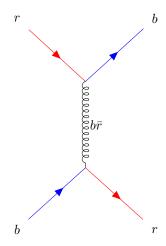
(a) Vertex factor of the interaction between nucleon and gauge field.



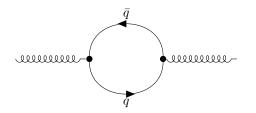
(b) Nucleon-nucleon interaction.



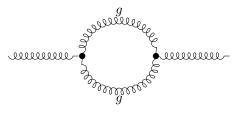
(a) Vertex factor of the color interaction between quark and gluon.



(b) Quark-quark color interaction: $qq^{'} \to qq^{'}$. The gluon carries the $b\bar{r}$ color.



(a) Quark loop radiation.



(b) Gluon loop radiation.