

Diquark Sum Rules for Exotic Baryons

We want to calculate the masses of $\Lambda(1405)$ and $N(1535)$ through the diquark sum rules with the interpolating field proposed by the diquark cluster picture for the penta-quark components in baryons. According to the paper, International Journal of Modern Physics A Vol. 21, No. 27 (2006), B. S. Zou, the penta-quark components could be dominant for some excited baryons and the diquark cluster picture for the penta-quark components in baryons also gives a natural explanation for the longstanding mass-reverse problem of $N(1535)$, $N(1440)$ and $\Lambda(1405)$ resonances as well as the unusual decay pattern of the $N(1535)$ resonance.

Primary author: Mr NOH, Sungsik (Yonsei University)

Presenter: Mr NOH, Sungsik (Yonsei University)