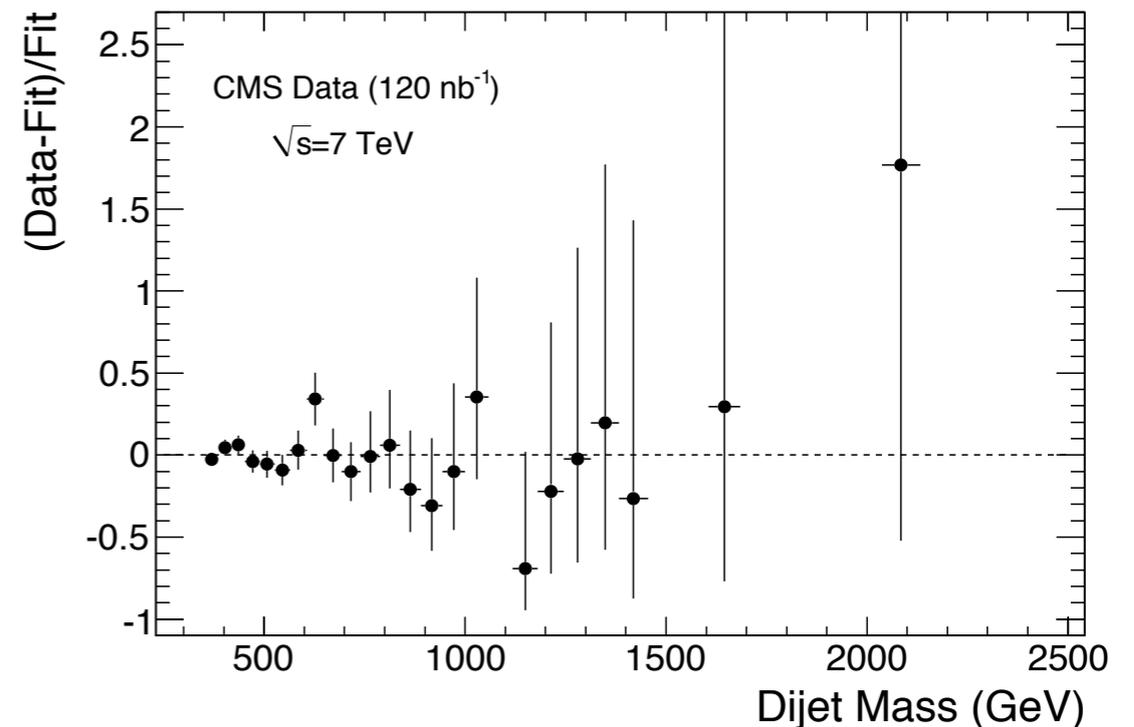
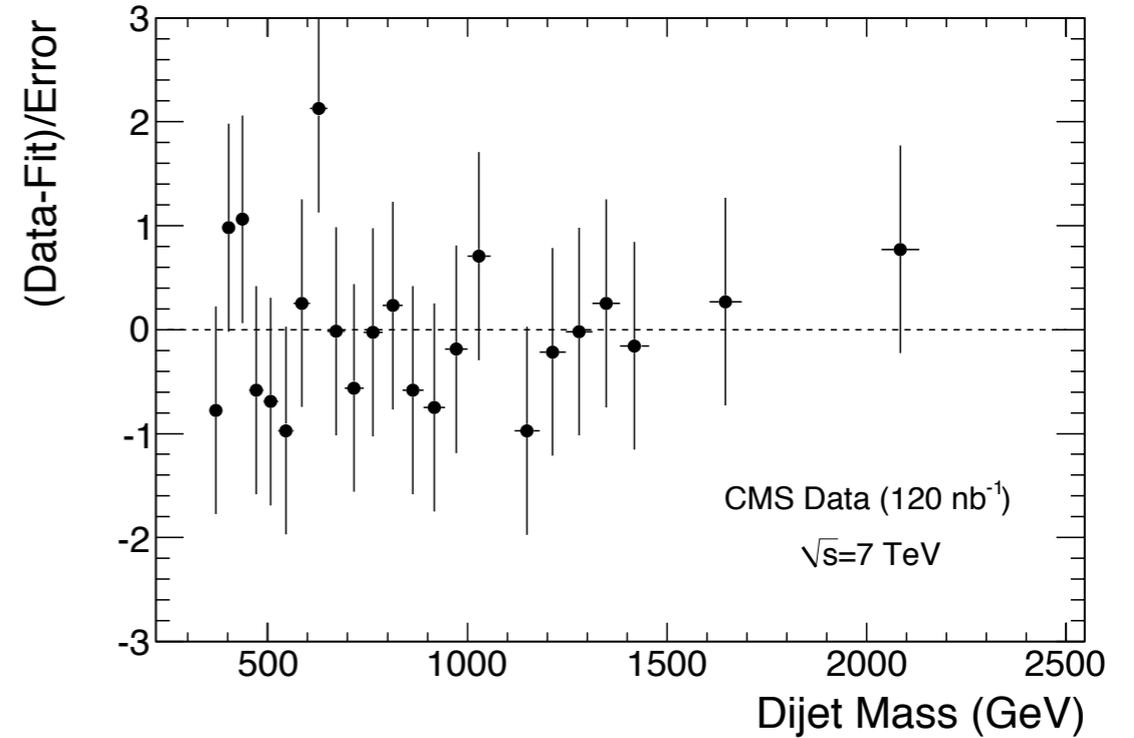
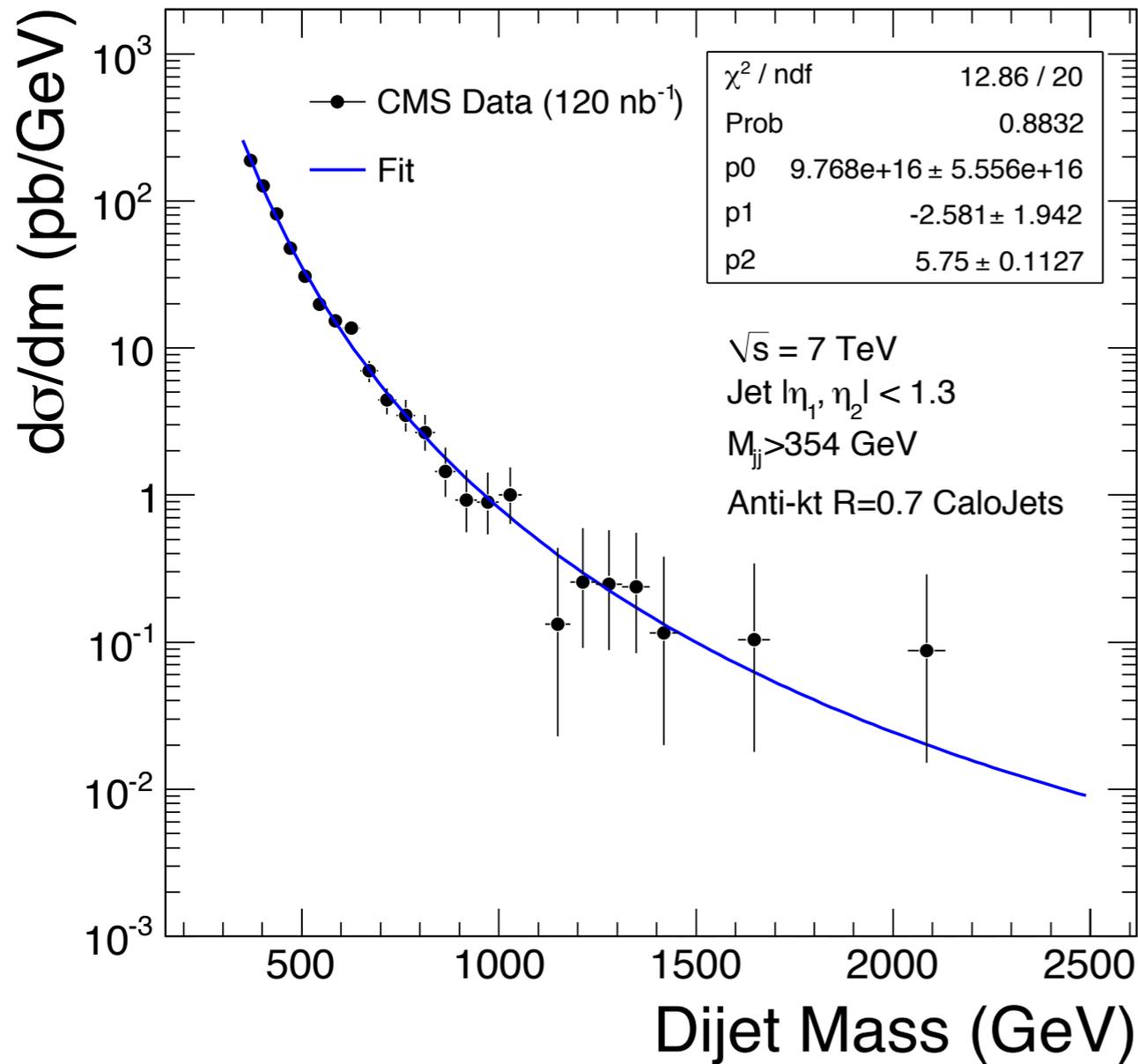




Dijet Mass and Fit

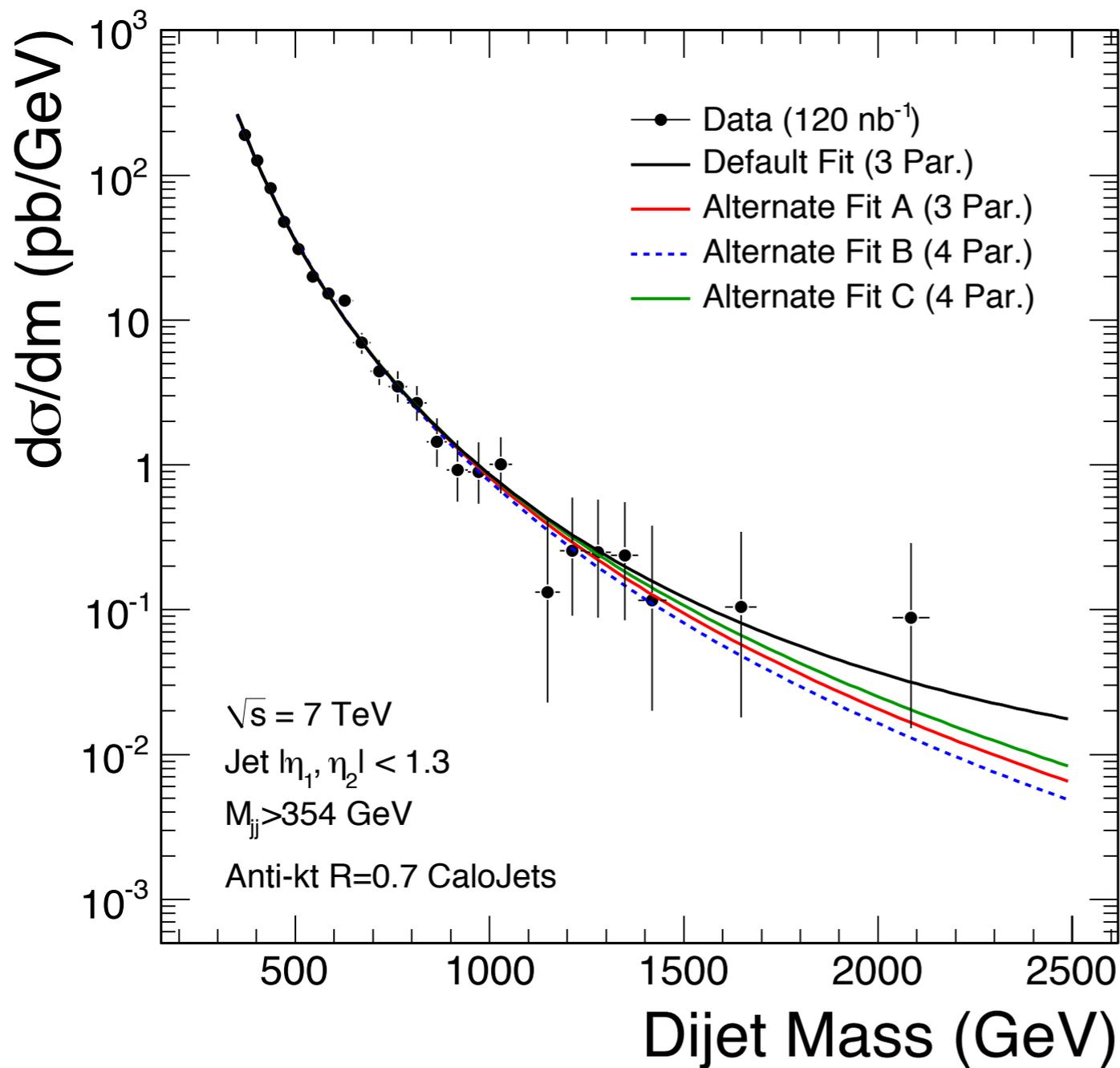
- We fit the data with the function with 3 parameters.
- We get a good fit.



$$\frac{P_0 \cdot \left(1 - m/\sqrt{s} + P_3 \cdot (m/\sqrt{s})^2\right)^{P_1}}{m^{P_2}}$$



Another Fit Parametrization



Default

$$\frac{P_0 \cdot \left(1 - m/\sqrt{s} + P_3 \cdot (m/\sqrt{s})^2\right)^{P_1}}{m^{P_2}}$$

$$\frac{P_0 \cdot (1 - m\sqrt{s})^{p_1}}{(m/\sqrt{s})^{p_2} + p_3 \ln(m\sqrt{s})}$$

A

$$\frac{P_0 \cdot (1 - m/\sqrt{s})^{P_1}}{m^{P_2}}$$

B

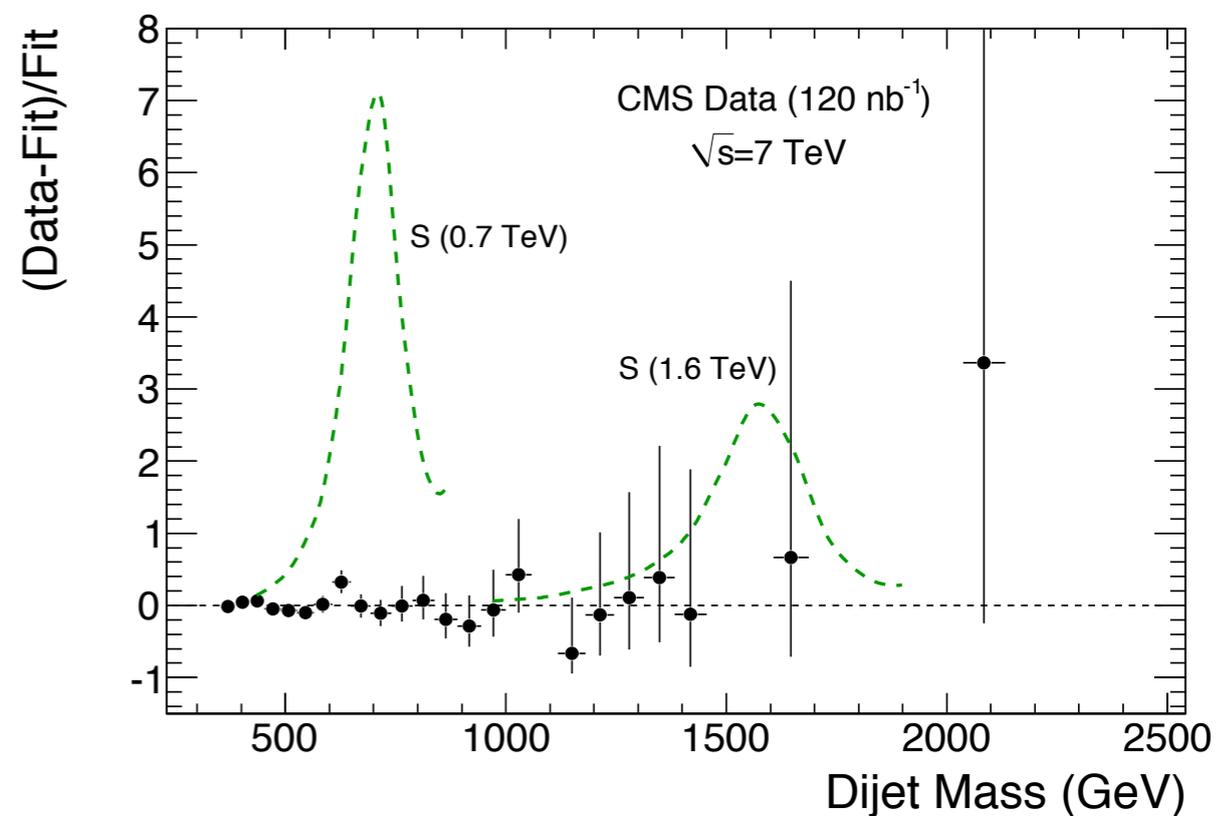
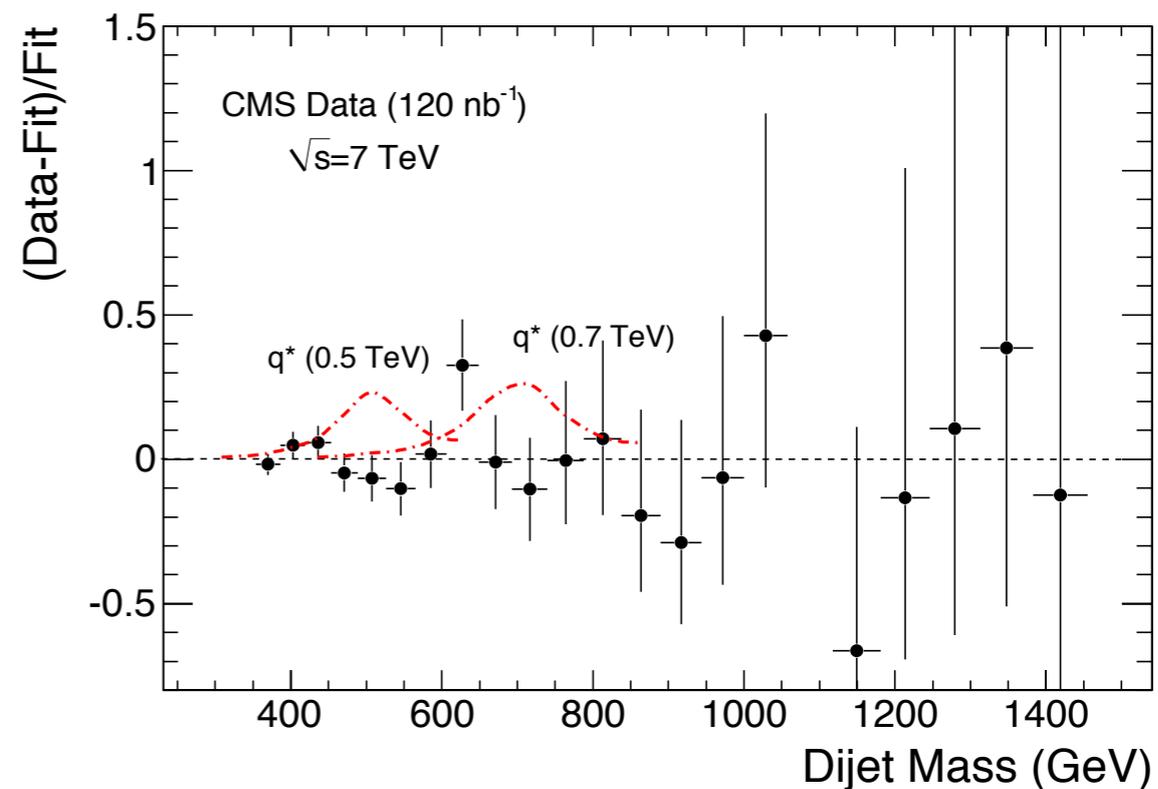
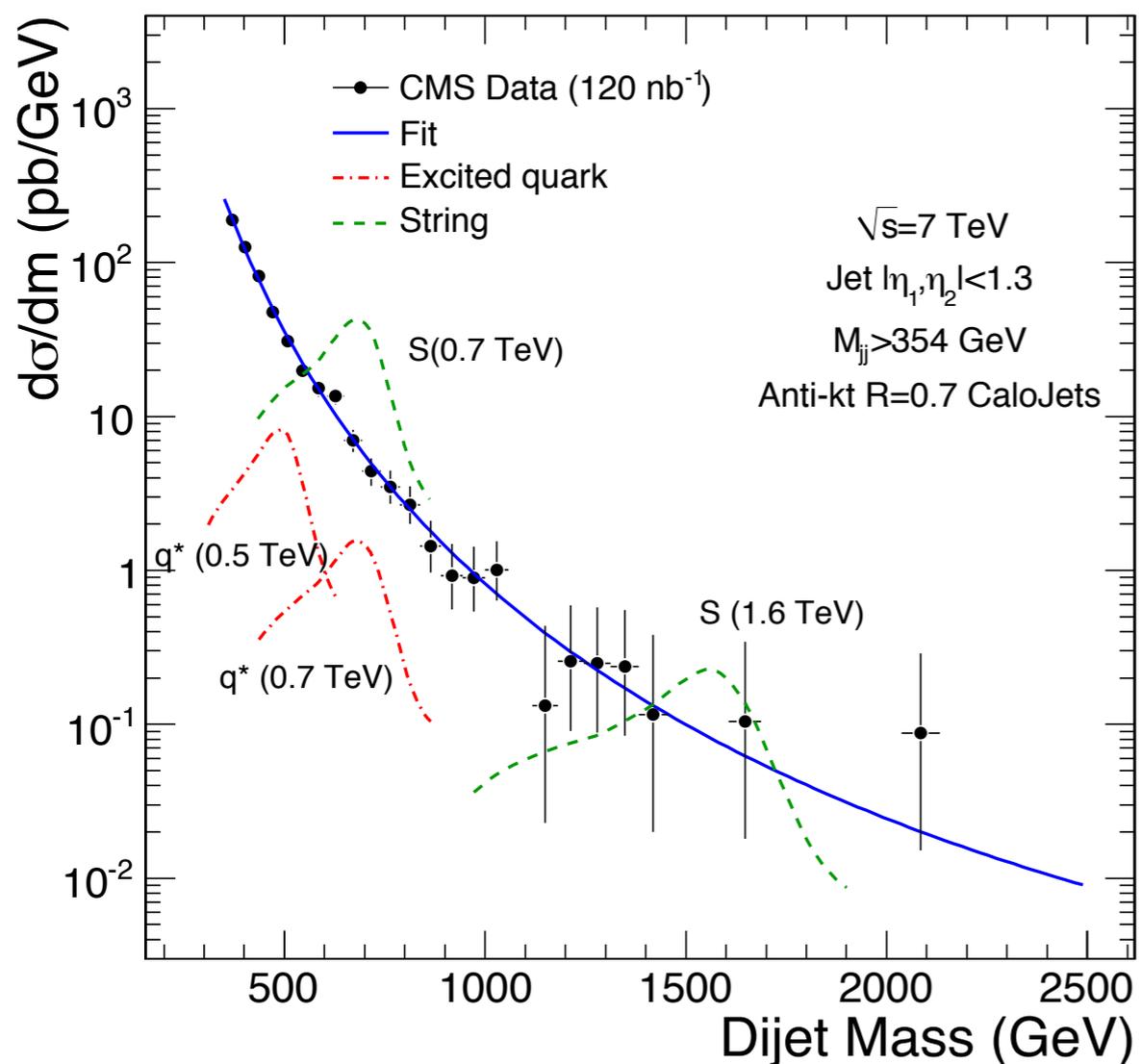
$$\frac{P_0}{(P_1 + m)^{P_2}}$$

C



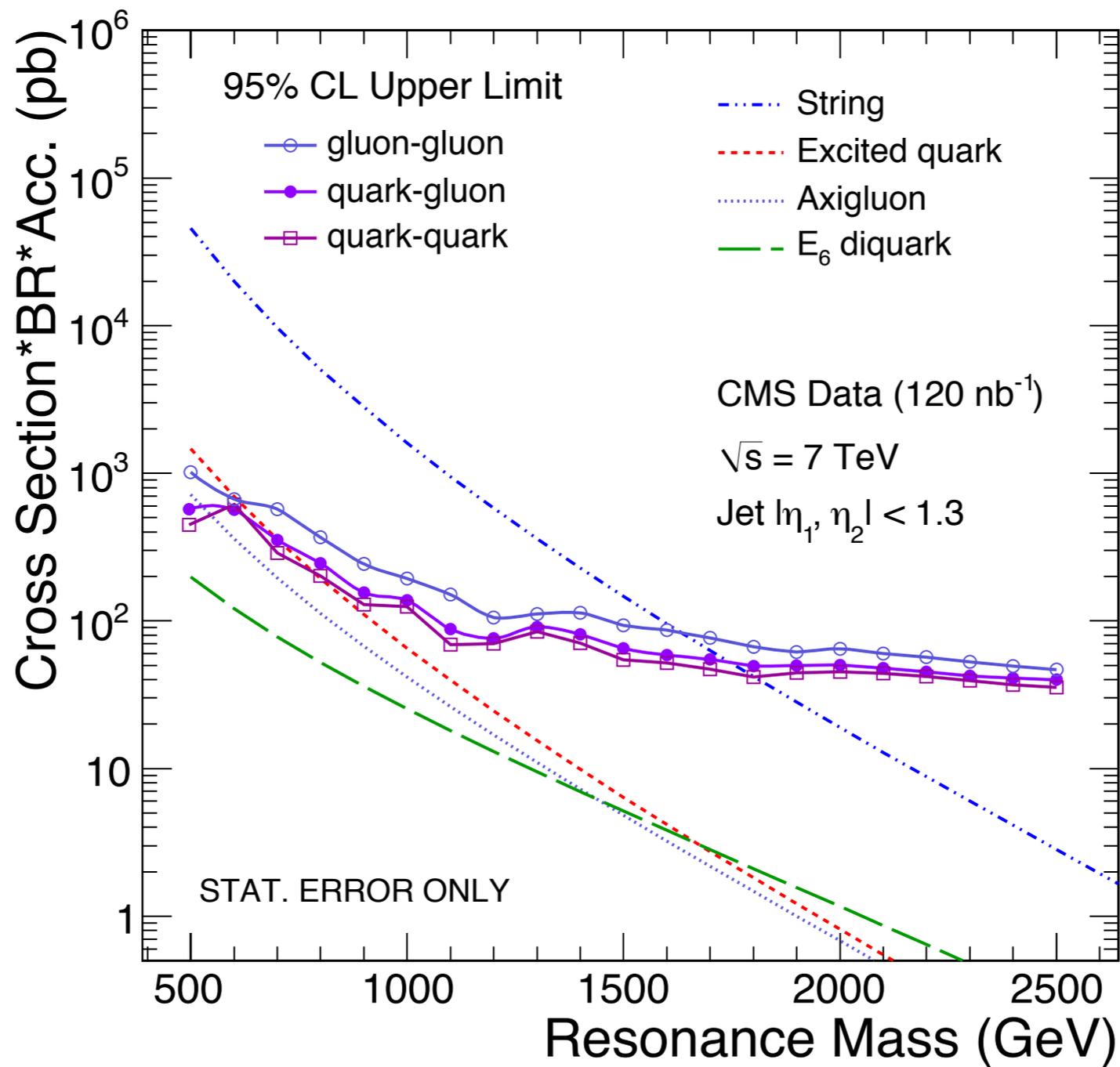
Fit and Signal

- We search for dijet resonance signal in our data.
- Excited quark signals are shown at 0.5 TeV and 0.7 TeV.
- String resonance signal is shown at 1 TeV and 1.4 TeV.



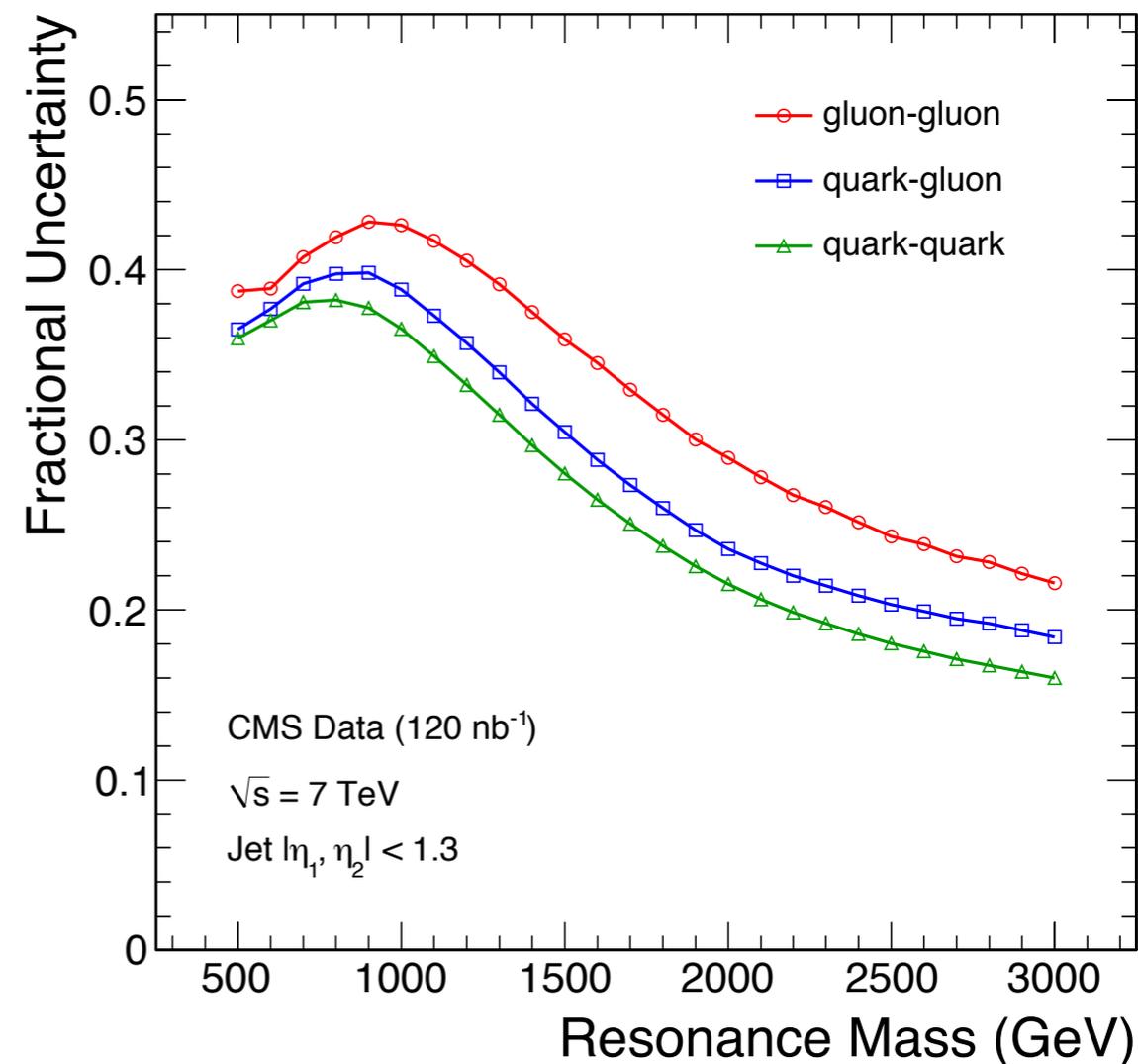
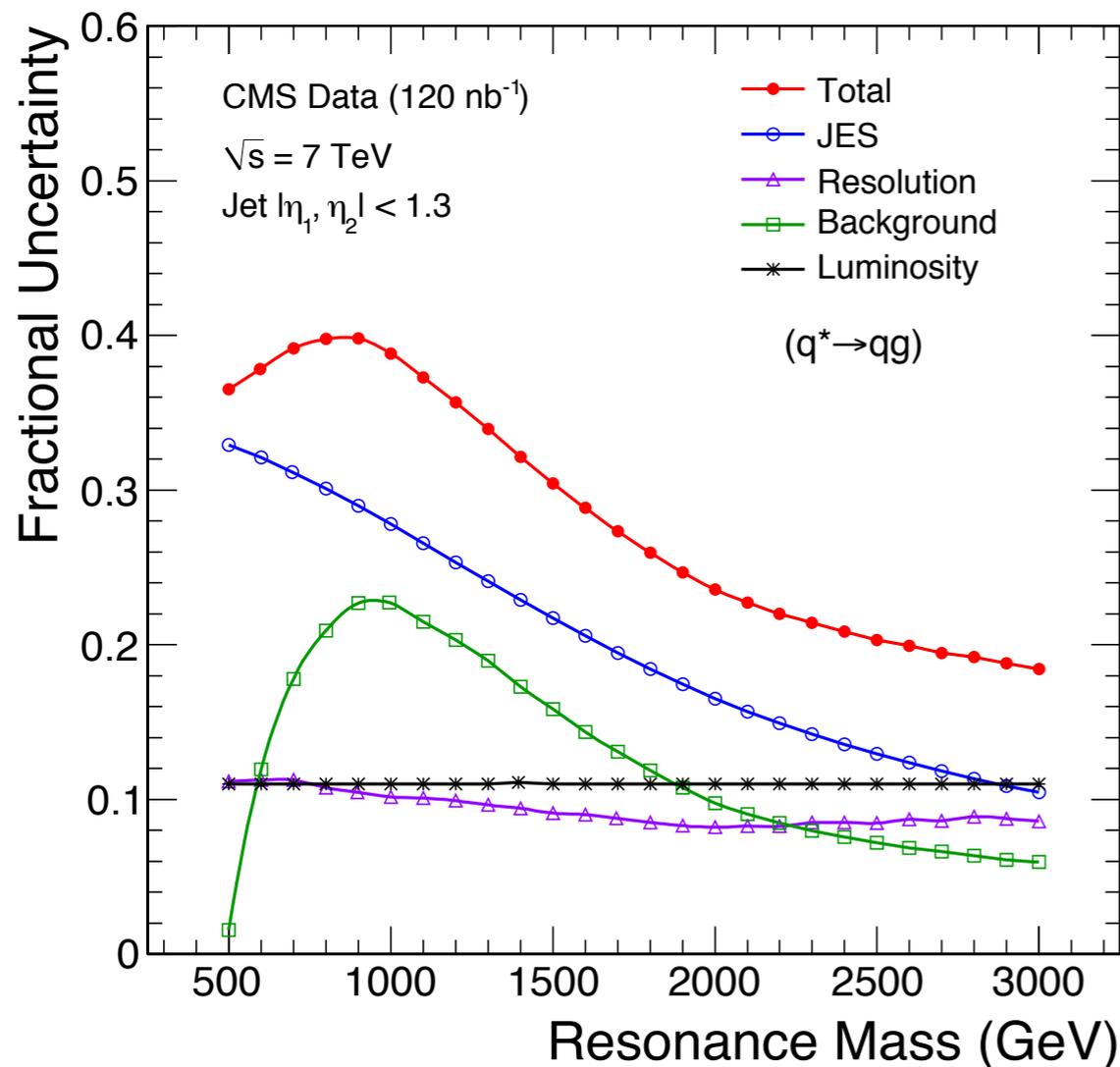


Limits with Statistical Uncertainties Only





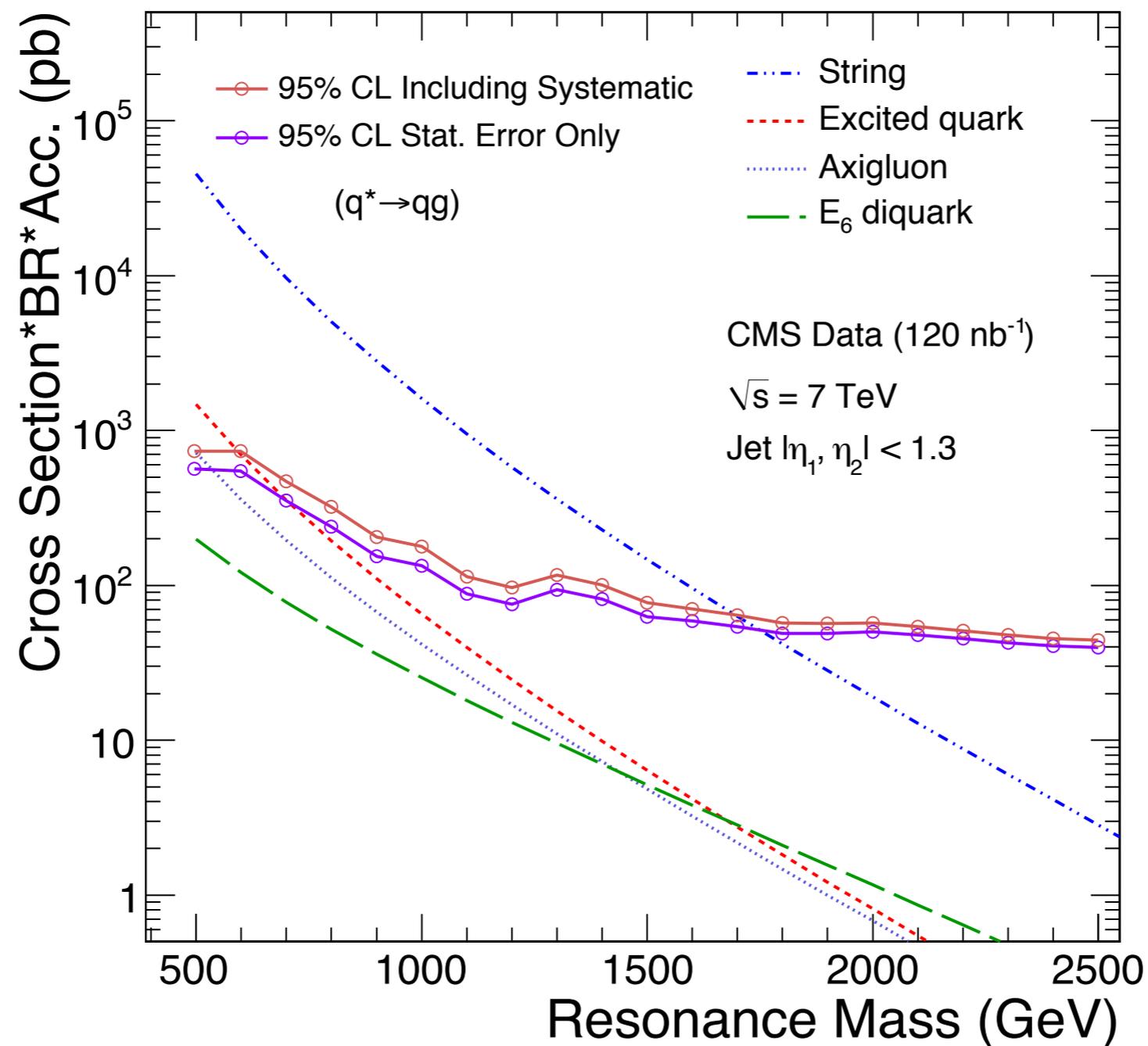
Systematics



- Total systematic uncertainty varies from 16% to 43% depending on resonance mass and type.

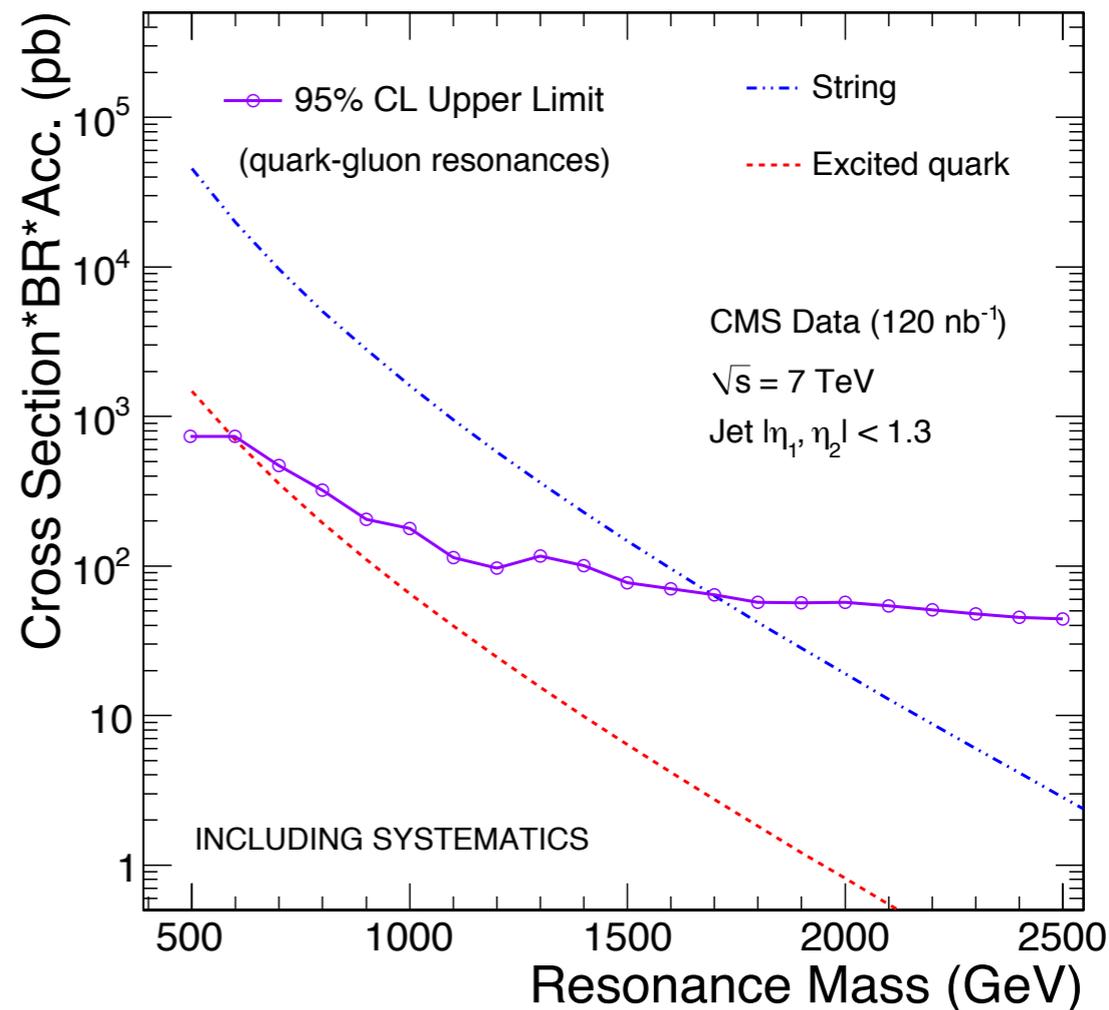
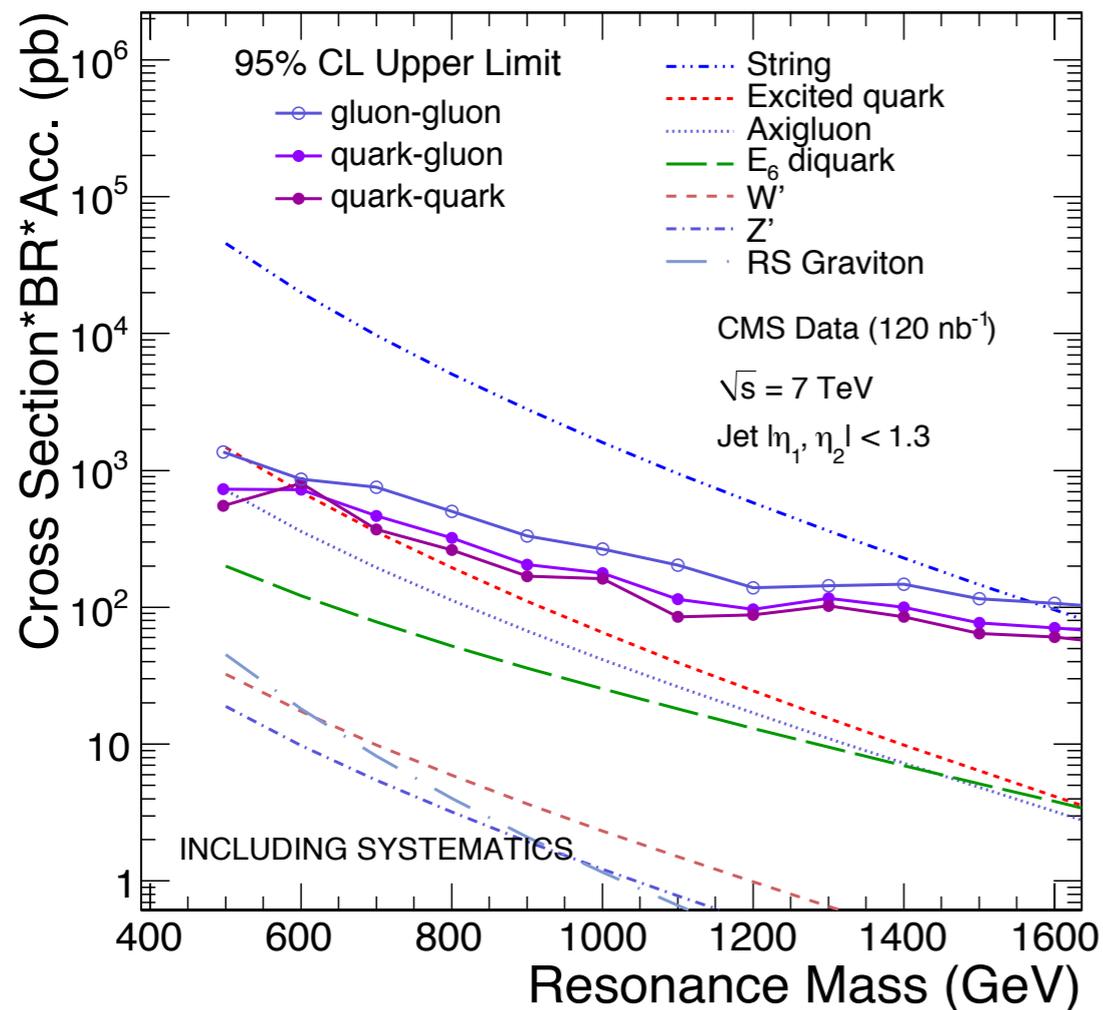


Effect of Systematics on Limit





Results



95% C.L. Excluded Mass (GeV)		
	CMS (120 nb⁻¹)	CDF (1 fb⁻¹)
String Resonance	1697 (1676 from mixing)	1400
Excited quark	594	870
Axigluon, Coloron	520	1250