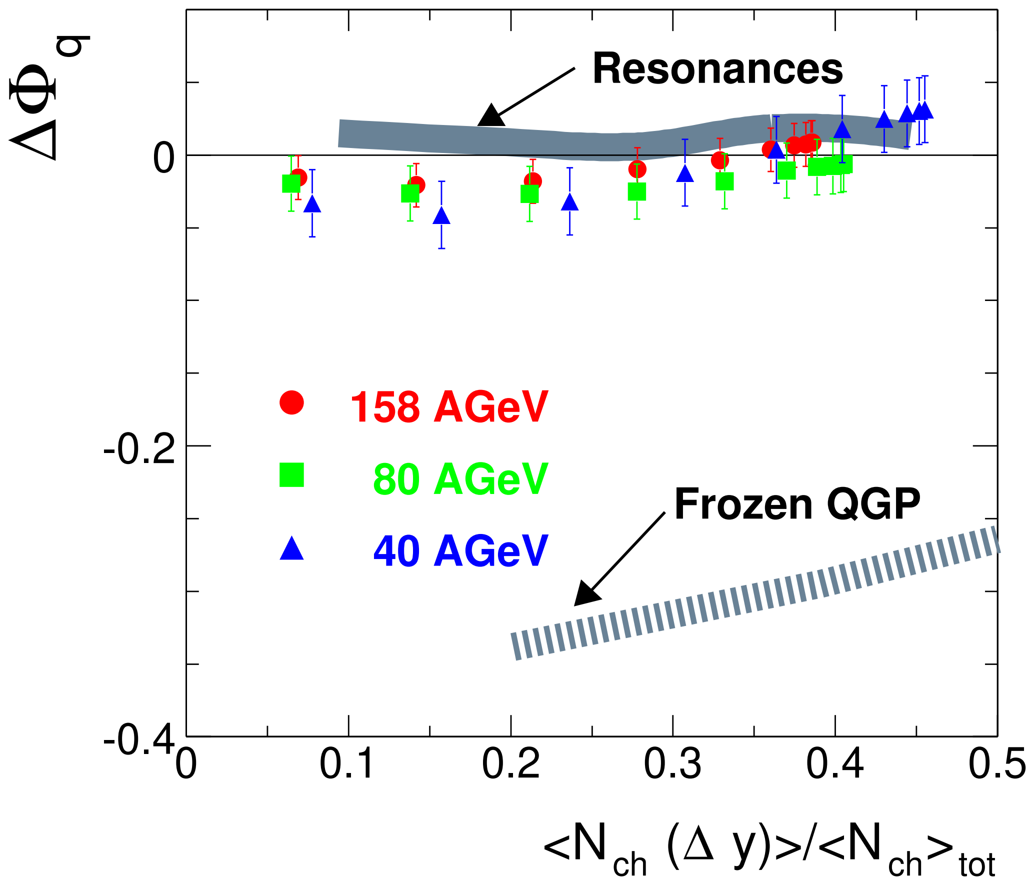
Fluctuations of the Net Charge $Q = N_+ - N_-$

$\Phi_q = \sqrt{\frac{\langle Z^2 \rangle}{\langle N_{ch} \rangle}} - \sqrt{1 - \frac{\langle Q \rangle^2}{\langle N_{ch} \rangle^2}}$ (Gazdzicki, Mrowczynski)

$$Z = \sum_{i=1}^{N_{ch}^{event}} Q_i - \overline{Q}\ ,\ \overline{Q} \text{ inclusive mean charge}$$

- independent of number of superimposed particle sources
- indep. emission $\rightarrow \Phi_q = 0$, local charge cons. $\rightarrow \Phi_q \approx$ -1
- global charge conservation: $\Phi_q^{cc} = \sqrt{1 - \langle N_{ch} \rangle / \langle N_{ch} \rangle_{tot}} - 1$

$\Rightarrow$ evaluate: $\Delta\Phi_q = \Phi_q - \Phi_q^{cc}$



- data compatible with global charge conservation
- resonance decay kinematics wash out possible reduction of fluctuations (J.Zaranek,Phys.Rev.C66:024905,2002)
- general acceptance correction not possible, publish filter