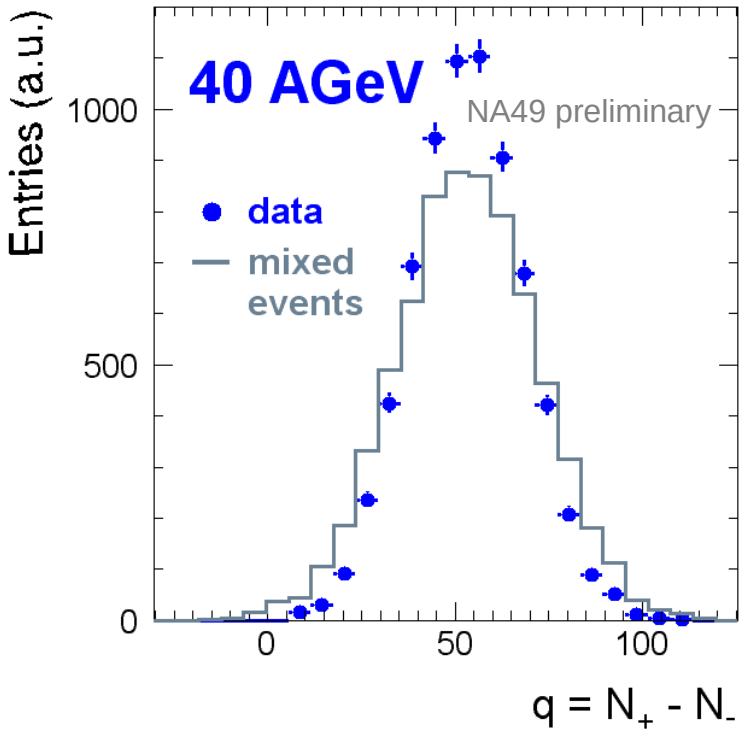
Charge Fluctuations

- Basic idea:
  - Had. phase: charge unit = 1
  - QGP phase: charge unit = 1/3
  - Reduced fluctuations in QGP phase

    S. Jeon and V. Koch,
    Phys. Rev. Lett. 85 (2000) 2076

    M. Asakawa, U. Heinz, and B. Müller,
    Phys. Rev. Lett. 85 (2000) 2072
- Suitable observable must take into account:
  - Impact parameter fluctuations
  - Acceptance effects
  - Net charge of the system
  - Charge conservation
- Study net charge: $q = N_+ - N_-$



Mixed events wider:

→ charge conservation not included