Assumptions for the calculation

- Both electron and positron from vector meson decays going to the PHENIX acceptance (Pt > 200 MeV/c, |?| 0.33 and 2*(|?| < 90 degree)).
- The rejection factor for pion.
  - In the PHENIX acceptance, rejection factor is 200.
  - Out of the PHENIX acceptance, rejection factor is 10 for pions which has the momentum below 200 MeV/
  - Out of the PHENIX acceptance, for pions which has the momentum above 200 MeV/c, we assumed no rejection.
- Momentum of electron is required above 50MeV/c. Perf 100%) efficiency for electron identification and trackin is assumed.

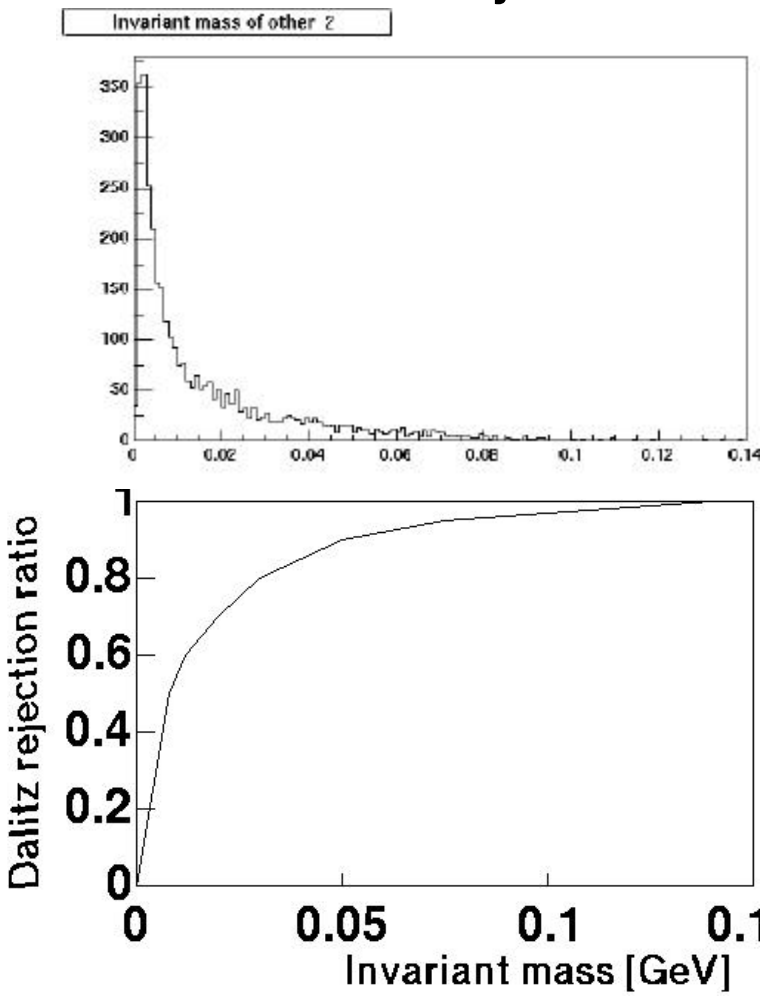
Signal survival probability

nal survival rates for several kind of Dalitz rejection ra
e calculated.

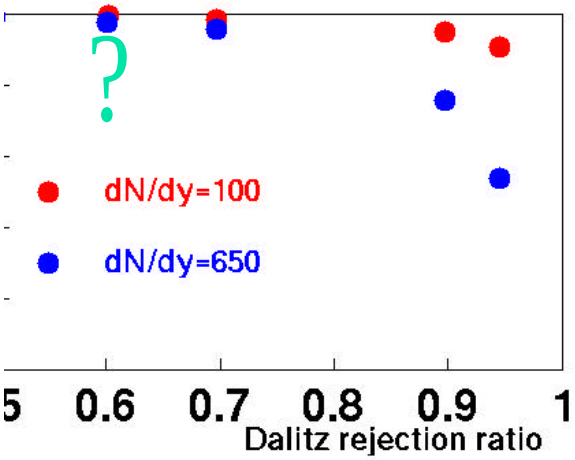
itz rejection ratio were
ulated as a fraction of
z rejected events on the
riant mass histogram.

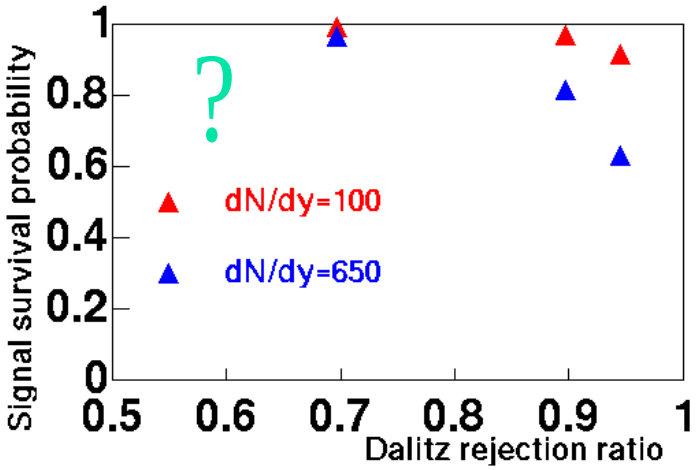
vas depends on mass cut
meter.

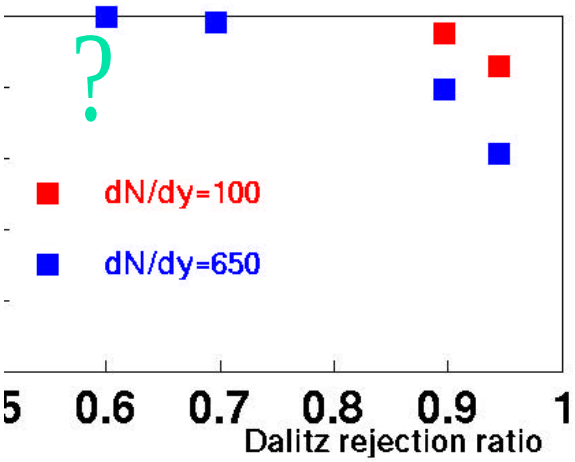
culations were done for
z rejection ratio of 50%,
, 70%, 80%, 90%, 95%,
100%.

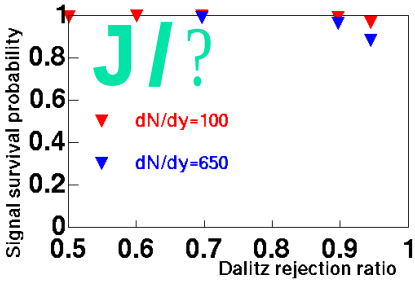


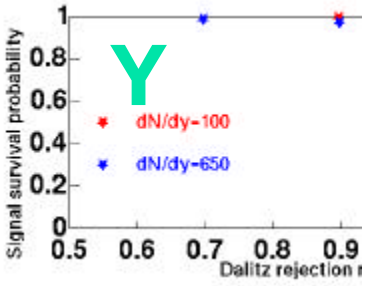
Results1(Simple Dalitz Rejection)



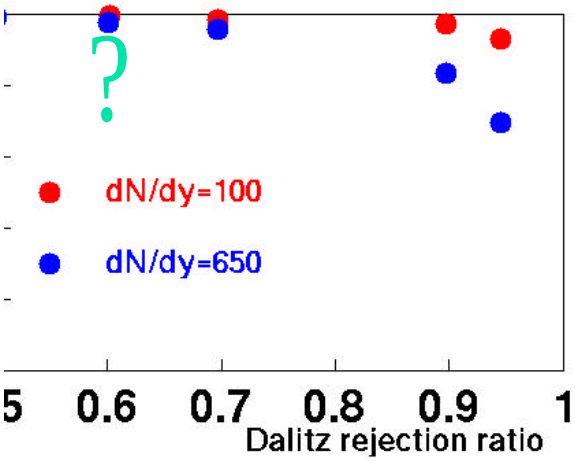


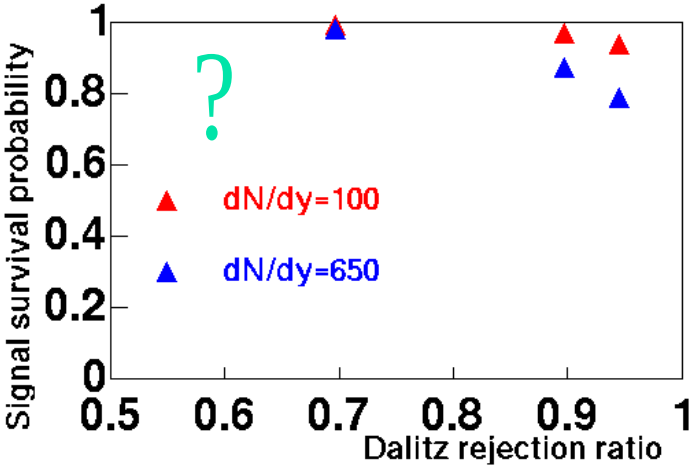


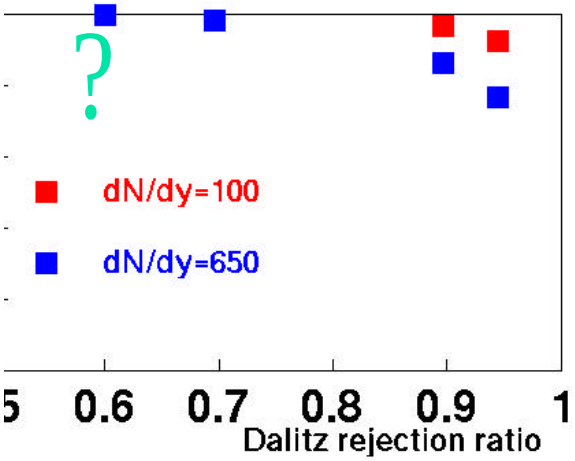


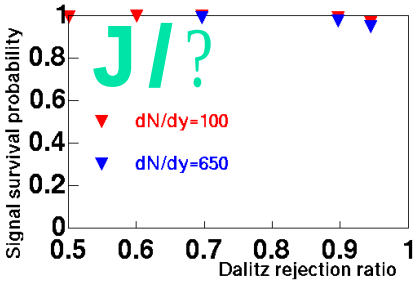


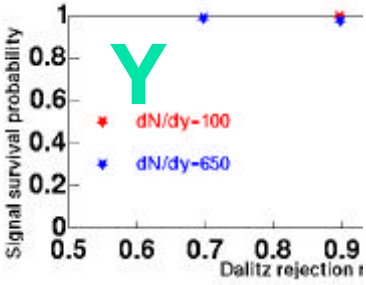
Results2(Minimum Dalitz Rejection)







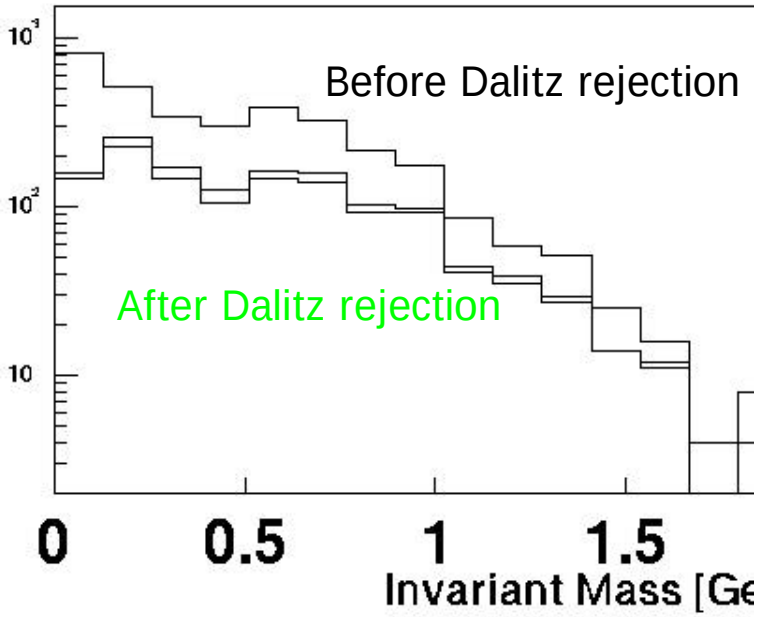




Background Estimation

nbinatorial background:

- Dalitz is included
- Pion mis-ID is included
- Gamma conversion is not included
- Resonance decays are not included



Electron and positron a
detected in PHENIX dete