

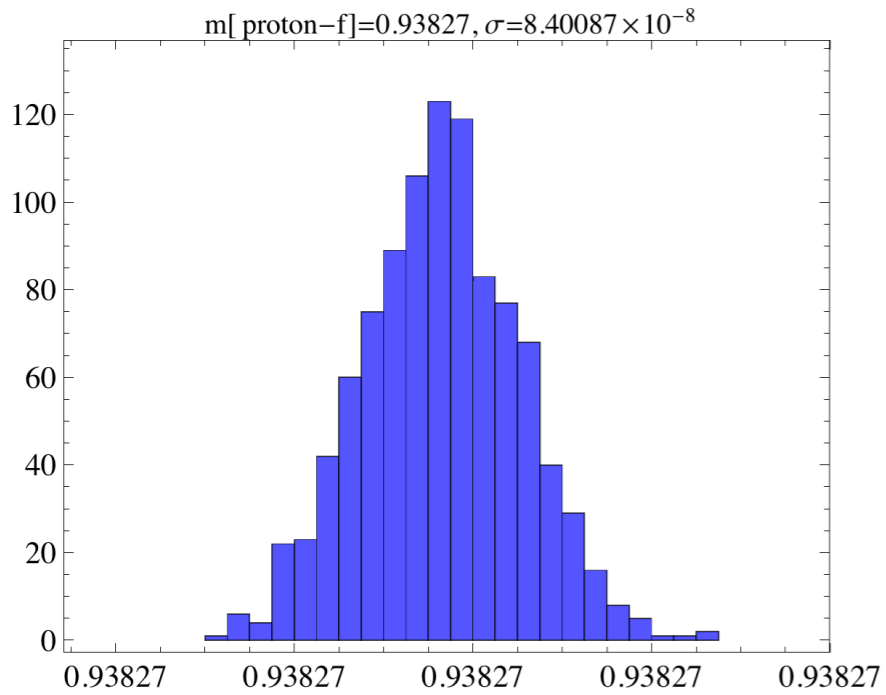
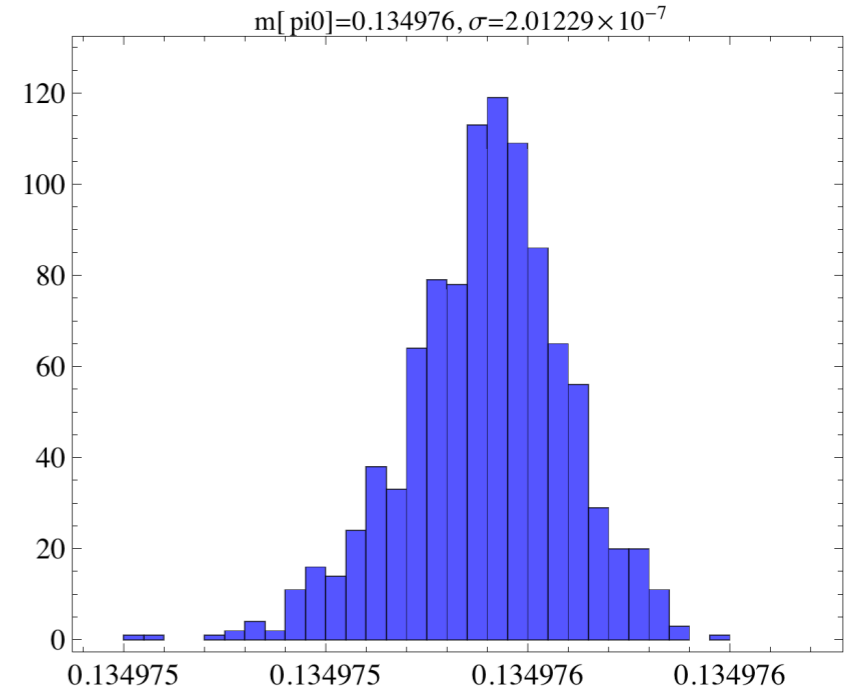
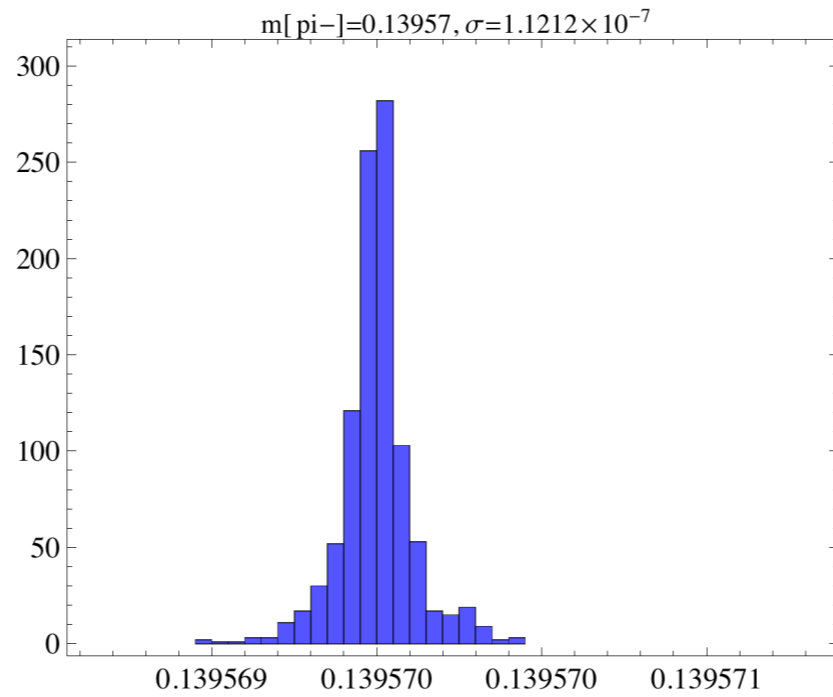
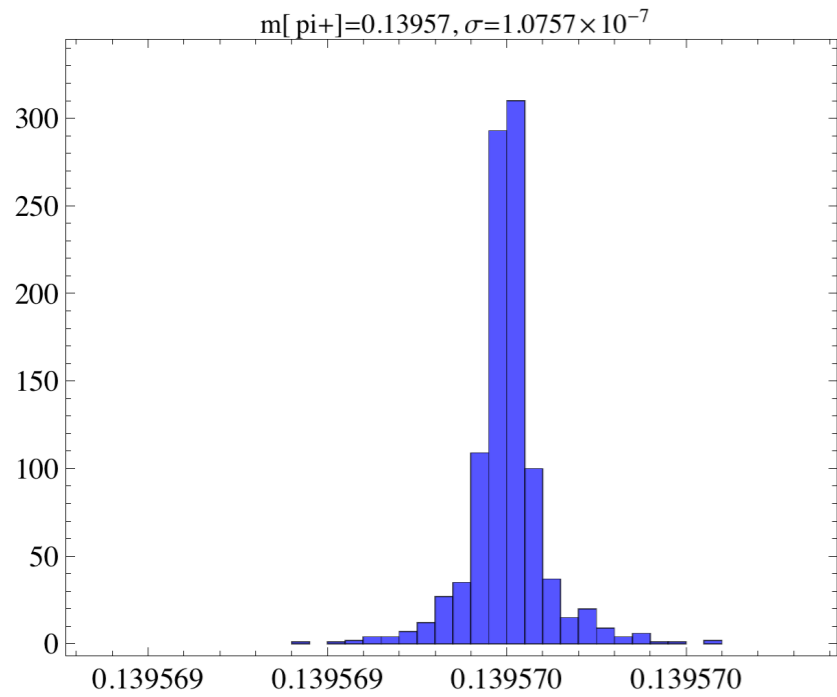
CLAS-g12 data (very preliminary)

Igor Danilkin,
August 23, 2014

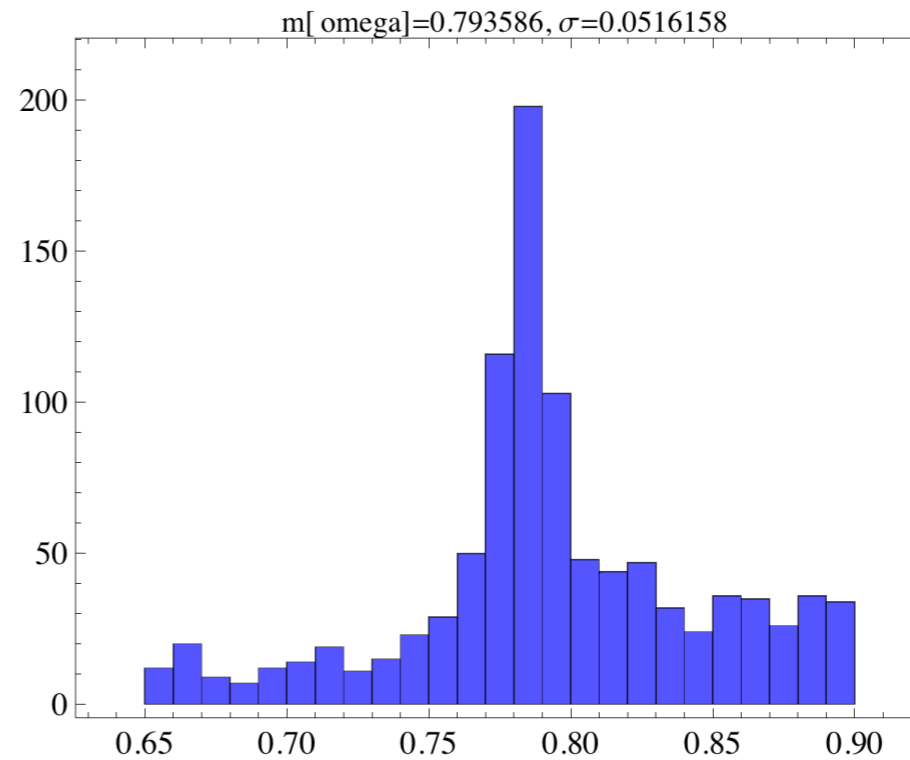
- Data from: Volker Crede
- Reaction: $p \rightarrow p \omega \rightarrow p \pi^+ \pi^- \pi^0$
- Incoming photon energies: 1600 - 3000 MeV
- Files: data, reconstructed Monte Carlo, generated Monte Carlo
- 4-vector format: <pi+ 4-vec: Px, Py, Pz, E;>, ...
incl: Q-value: likelihood for event being signal
- The events cover the (pi+ pi- pi0)-mass range 600 - 950 MeV
- Total 2,268,907 events resulting in more than 1,000,000 true omega events if weighted with the Q-values

next slides: only first 10,000 events

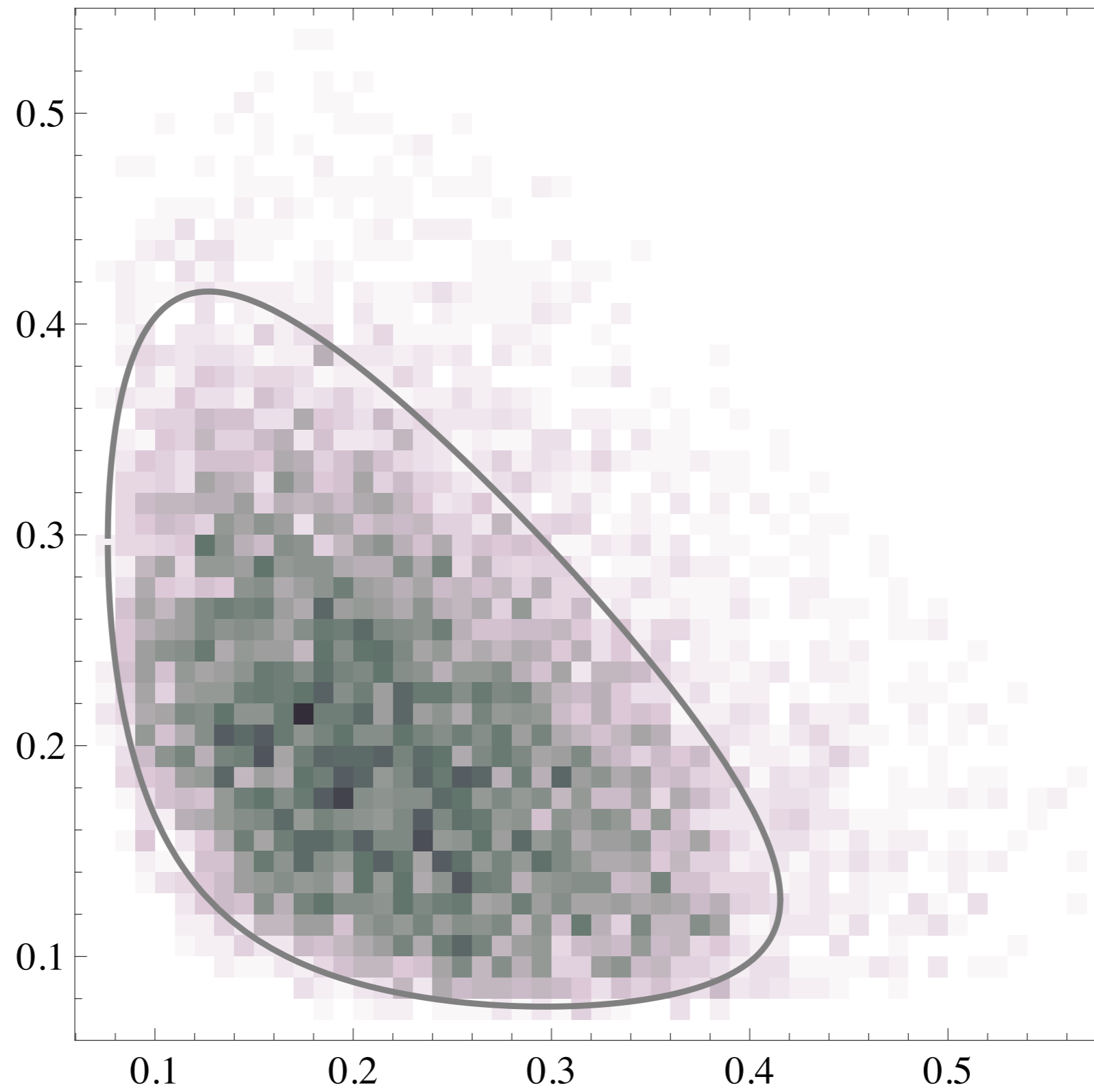
Masses



$\omega(782)$ MASS 782.65 ± 0.12 MeV (S = 1.9)
 $\omega(782)$ WIDTH 8.49 ± 0.08 MeV (S = 1.0)

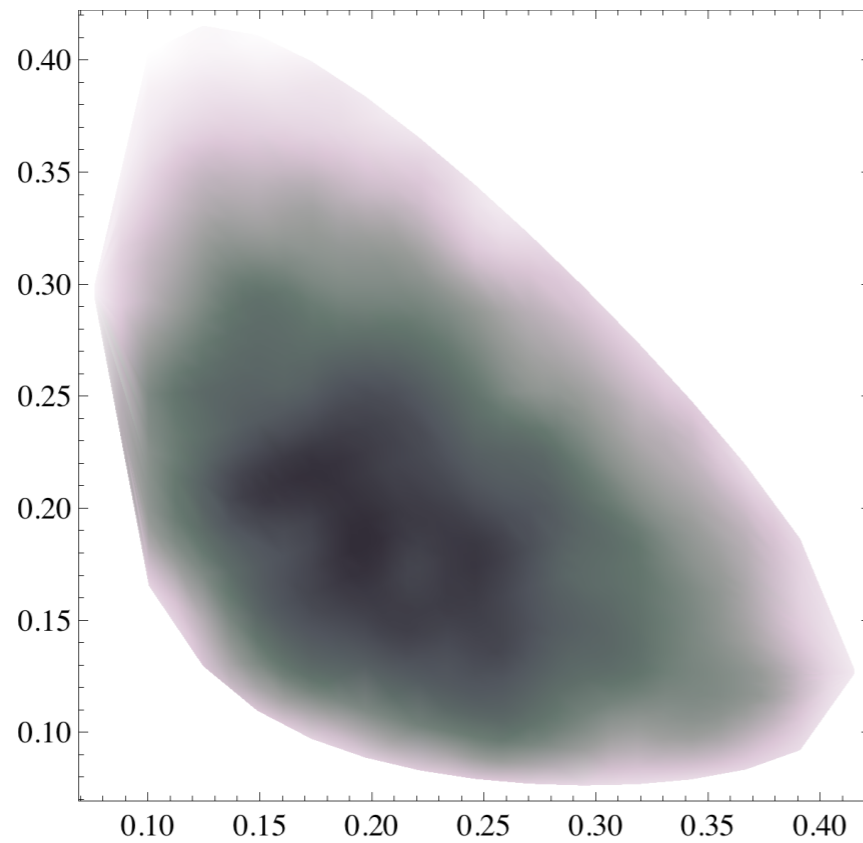


Dalitz plot



Dalitz plot

Data



Theory

