

Baryonspektroskopie – $pp \rightarrow p\pi^0p$
Partialwellenanalyse
Statusreport 12

Tobias Weisrock

Gruppenmeeting
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JOHANNES GUTENBERG
UNIVERSITÄT MAINZ

Statusreport

1. Fit auf echten Daten

- ▶ $\frac{1}{2}^+ - \frac{9}{2}^+$ und flat (nur pos. Reflektivität)
- ▶ Immer noch ohne Akzeptanzkorrektur
- ▶ verbesserter Algorithmus: ca. 6h 20-30 min pro Fitversuch
- ▶ Fit in einzelnen Massenbins möglich (→ l_xplus)
- ▶ erste Ergebnisse verfügbar

2. Monte Carlo

- ▶ CORAL
 - ▶ Yann Bedfer: Lauffähige Version für 2006 Daten mit Anleitung
 - ▶ Versuchen mit dieser Anleitung eine lauffähige Version zu erhalten→ bisher ohne Erfolg
- ▶ evtl. Problem mit COMGEANT



Erster Fitversuch

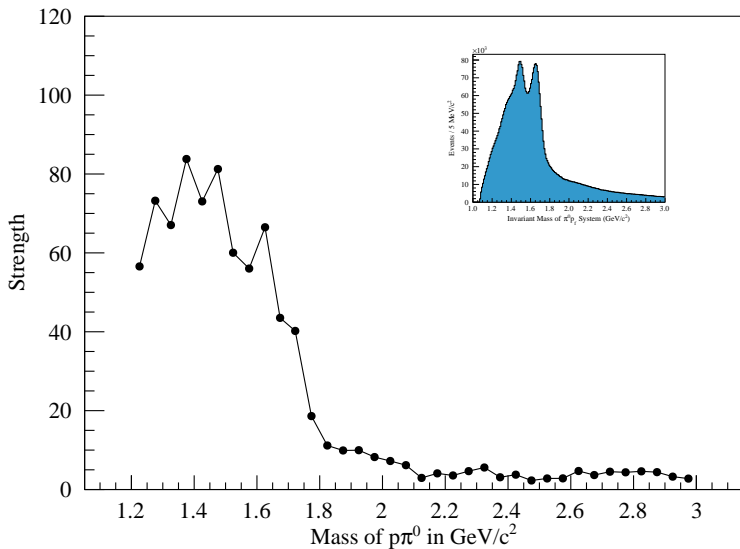
- ▶ 36 Massenbins á **50 MeV** von **1.2 GeV** bis **3 GeV**
- ▶ χ^2 -Fit ohne Akzeptanzkorrektur
- ▶ 50 Fits pro Massenbin
- ▶ gewichteter Mittelwert aller Fits mit $\chi_{\text{red}}^2 < 10$
 - ▶ Wichtung mit $1/\chi_{\text{red}}^2$

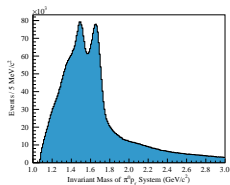
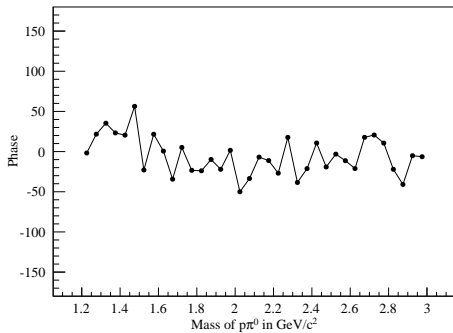
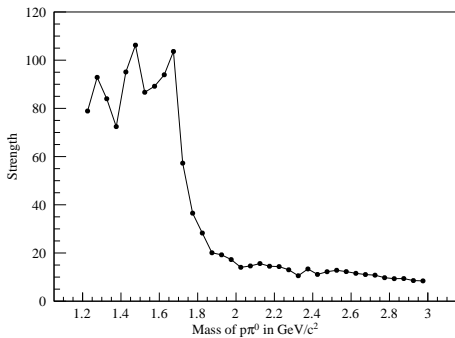
$$\bar{x} = \frac{\sum w_i \cdot x_i}{\sum w_i}$$

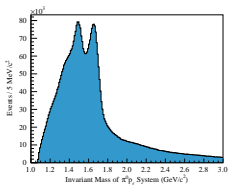
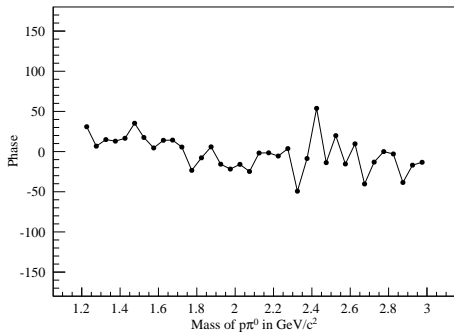
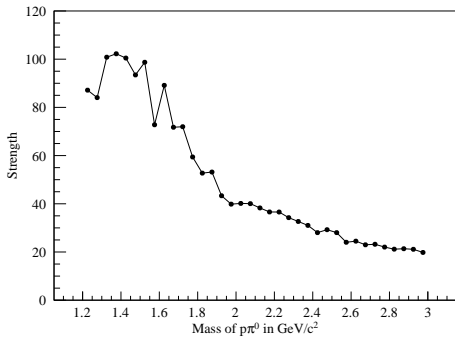
$$\Delta \bar{x} = \left(\frac{\sum w_i^2 (\Delta x_i)^2}{(\sum w_i)^2} \right)^{1/2}$$

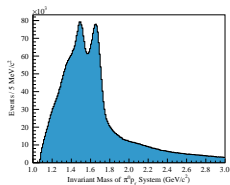
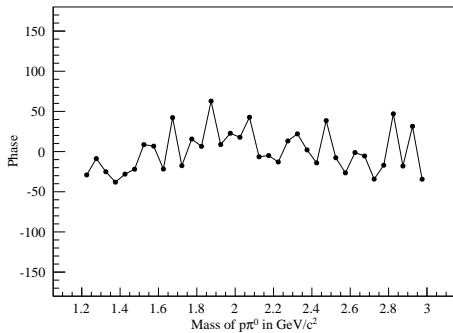
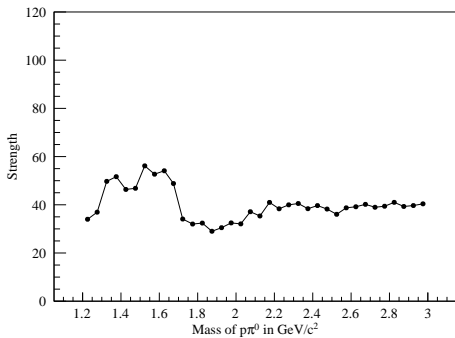
- ▶ Einige Fits noch mit sehr großen Fehlern

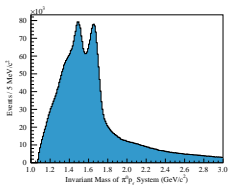
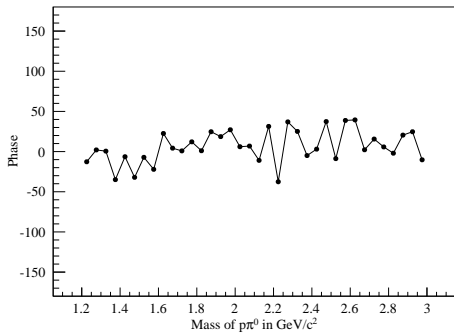
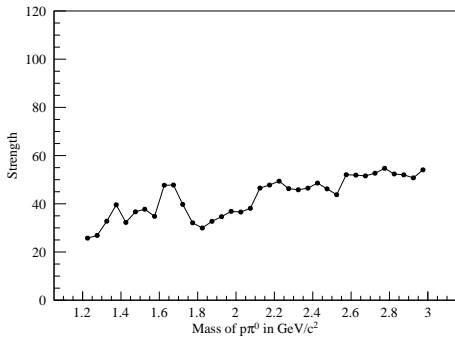


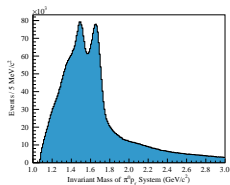
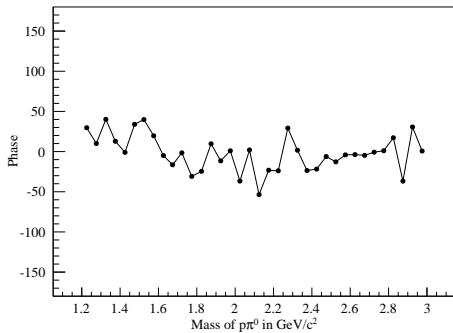
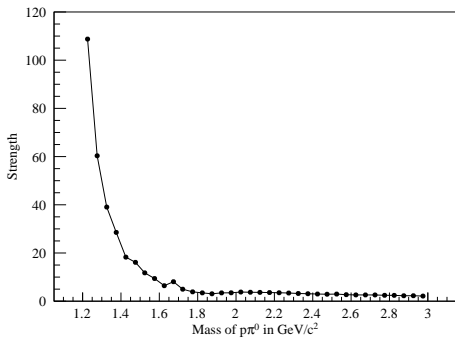


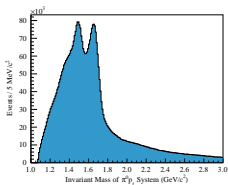
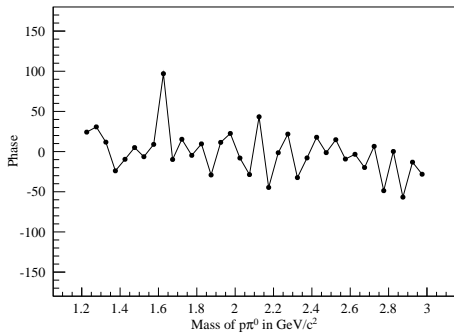
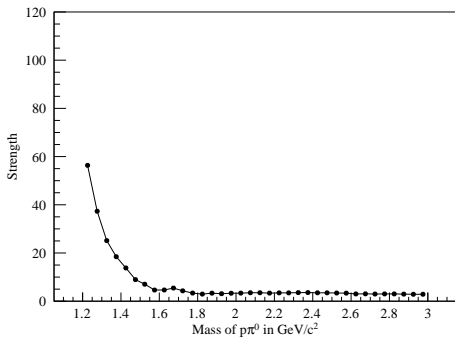


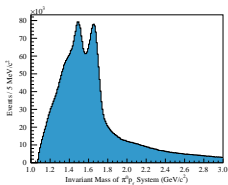
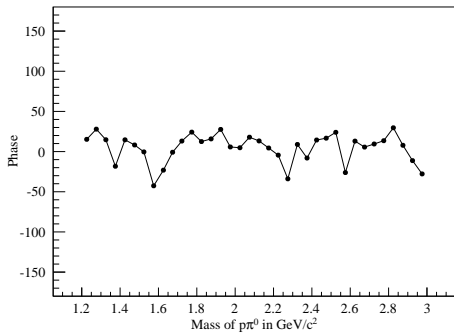
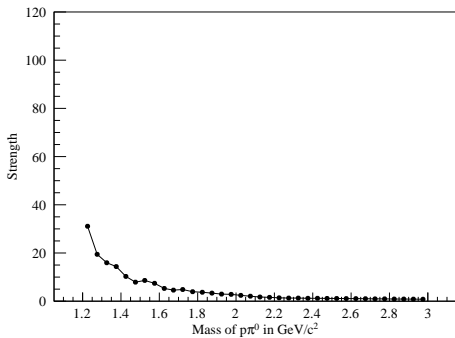


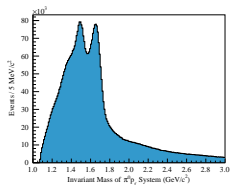
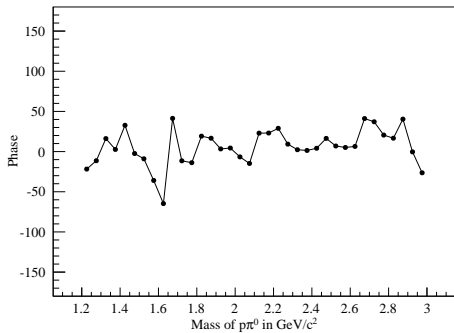
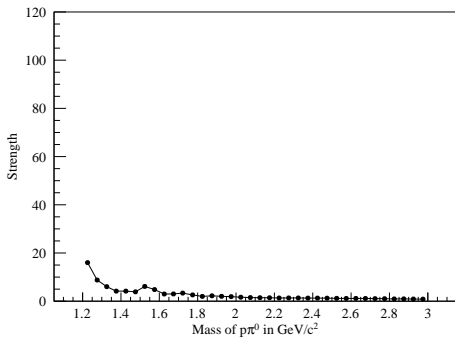












flat

