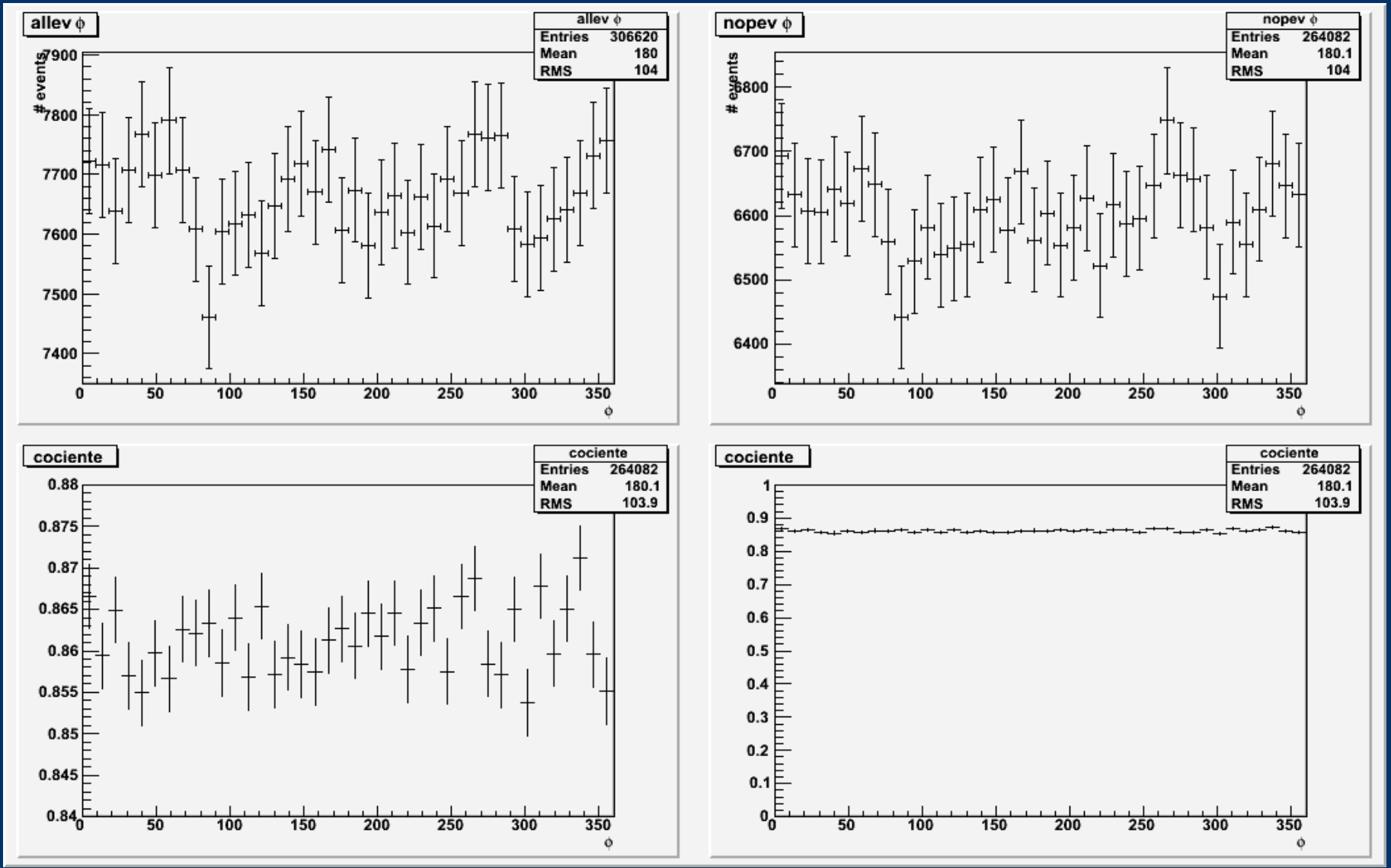
Small update on Phi studies

Celestino Rodriguez Cobo

DC06 MCTruth

- Photon issue mostly understood as of now
- Implementation of soft photon radiation
- Almost no difference from full statistics to non-photon events.
- Should not be a hinderance.



- Full and no photon statistic and its bin-to bin ratio

DC06 MCTRUTH vs ToyMC (again)

- Is the oscillation even present at all?
- Can it be fitted to the simplest level?
- Simple chi2 fits are performed:

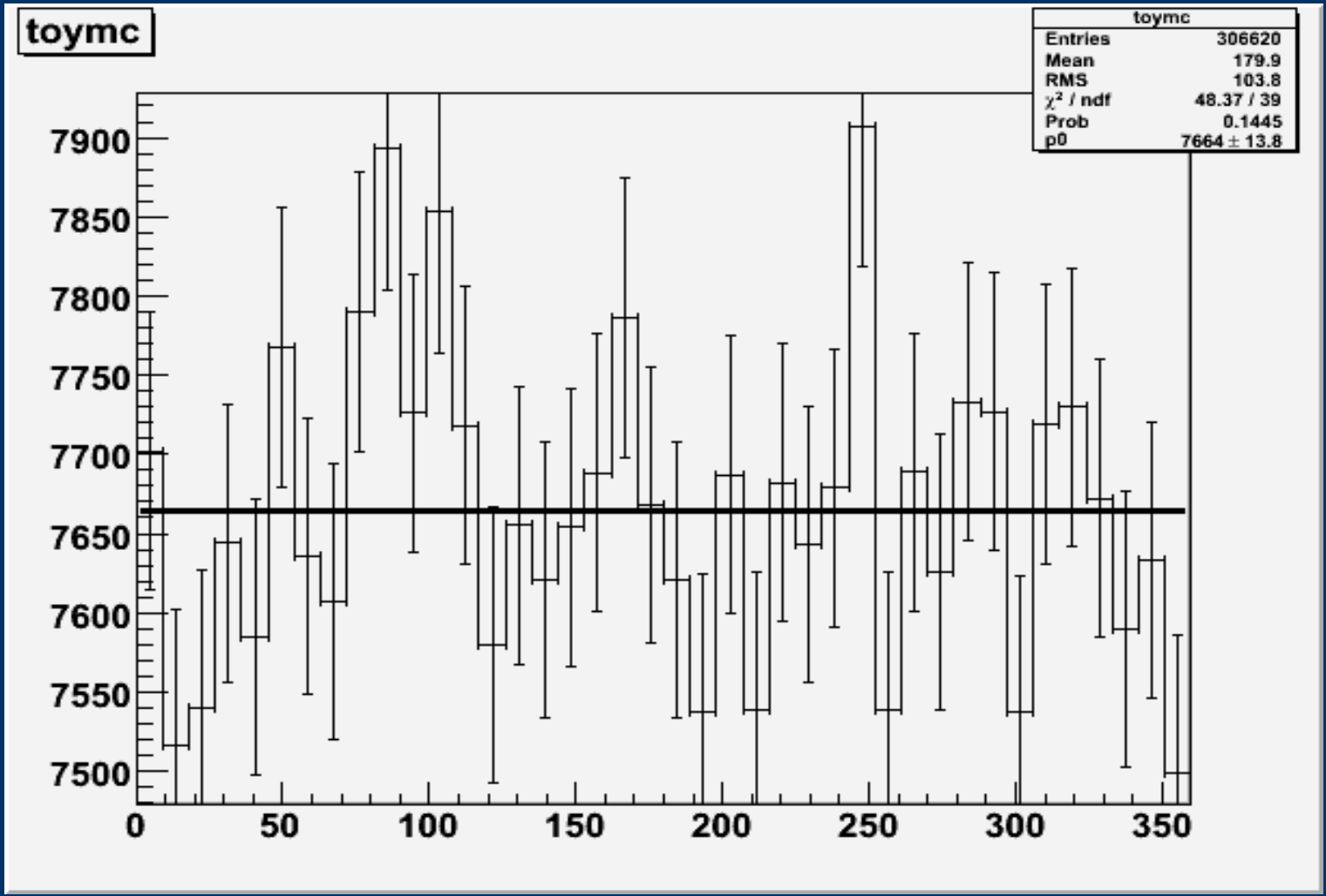
$$f_1 = p_0$$

$$f_2 = p_0 + p_1 * cos(\frac{\pi x}{180} + p_2)$$

$$f_3 = p_0 + p_1 * cos(\frac{2 * \pi x}{180} + p_2)$$

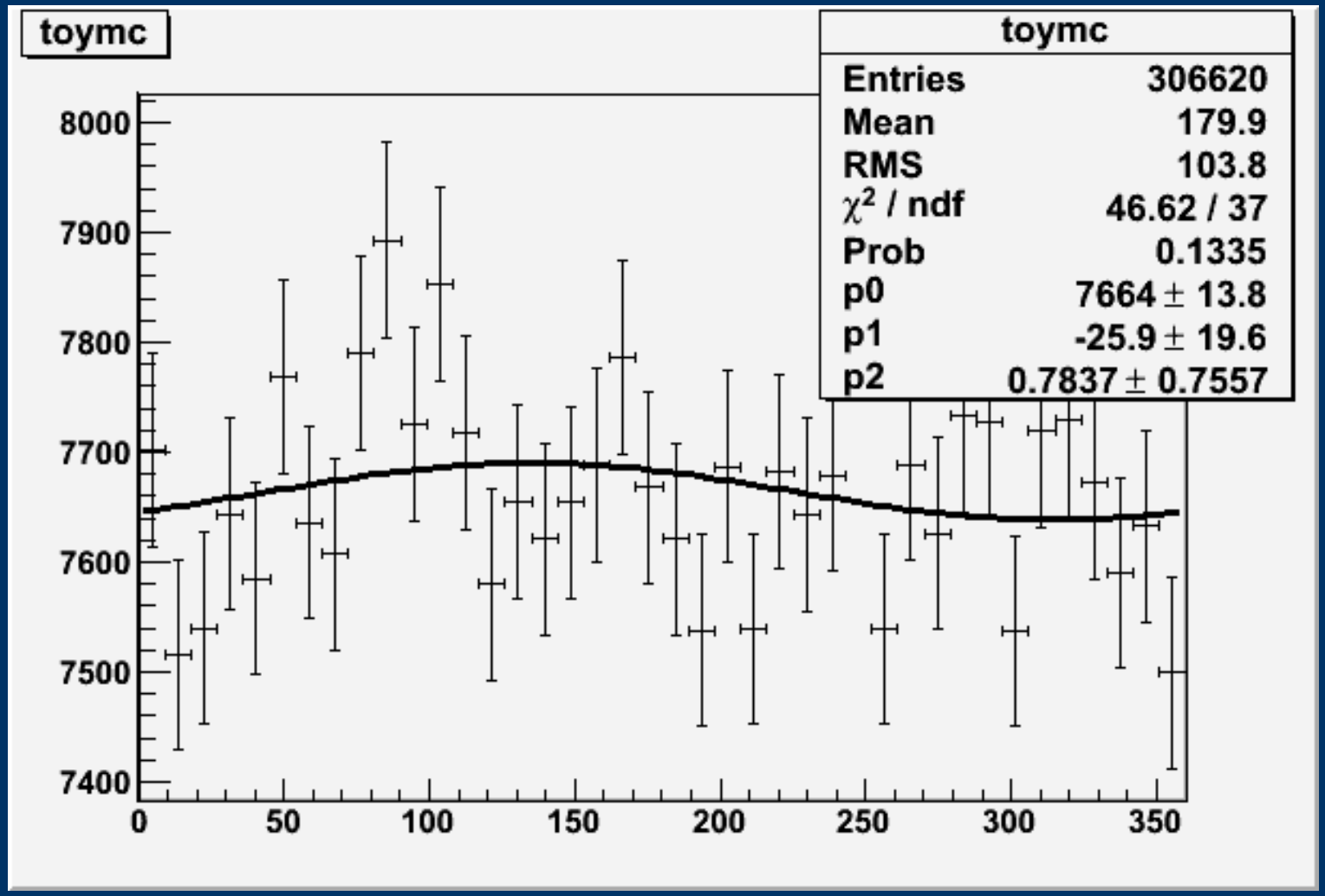
$$f_4 = p_0 + p_1 * cos(\frac{\pi x}{180} + p_2) + p_3 * cos(\frac{2 * \pi x}{180} + p_4)$$

Toy MC fits (1 out of 4)



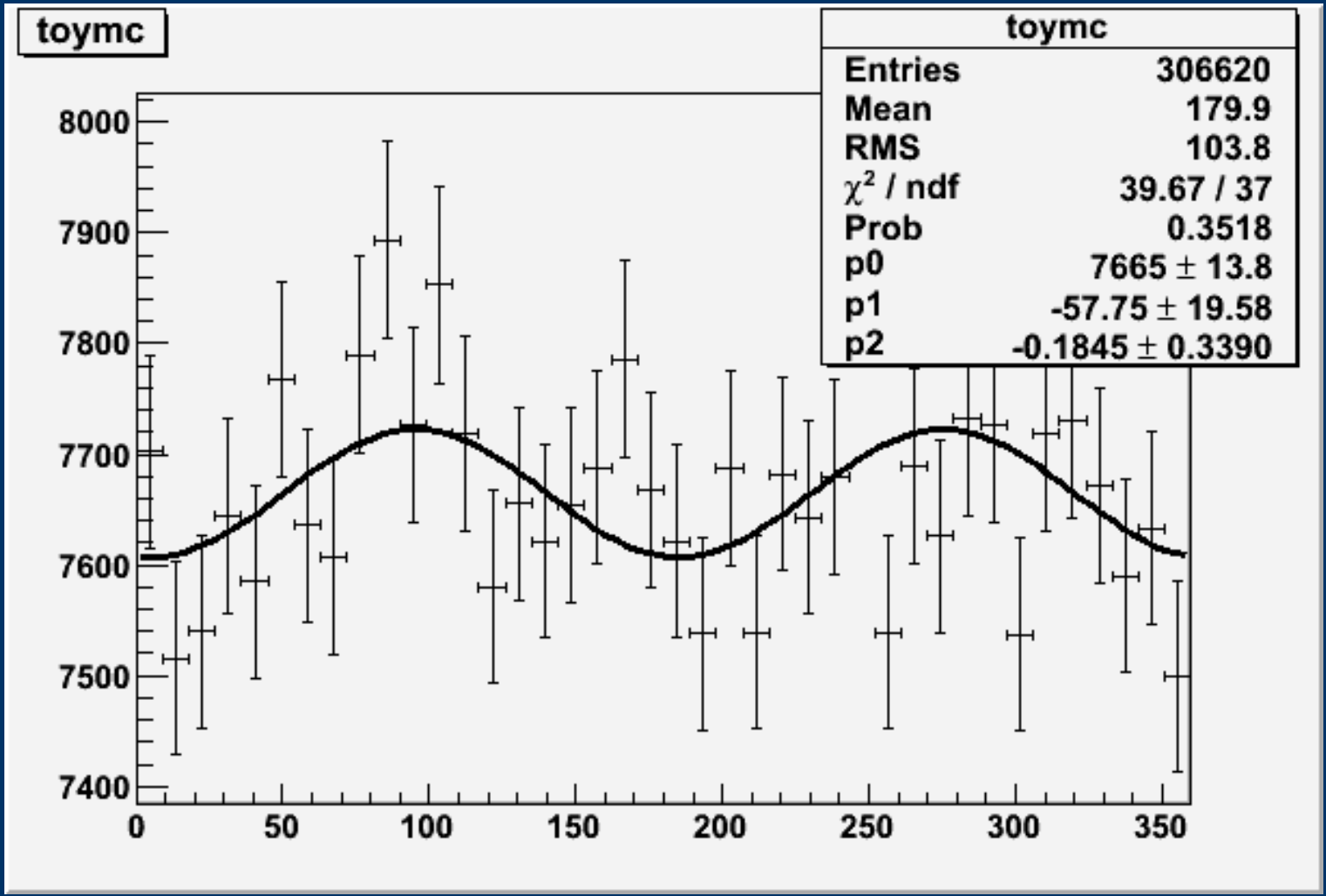
- Fit to single, flat distribution

Toy MC fits (2 out of 4)



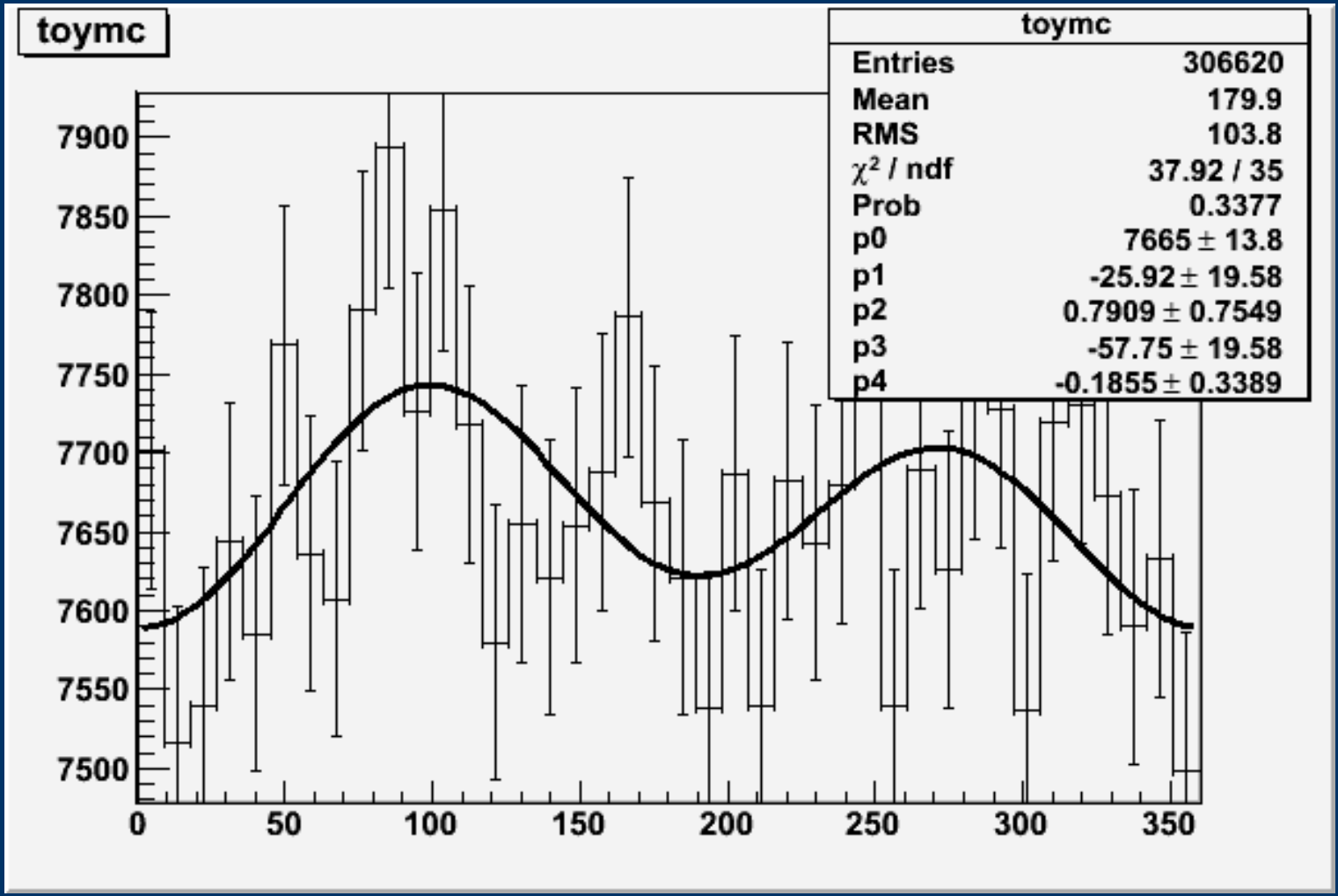
- Fit to single cos function

Toy MC fits (3 out of 4)



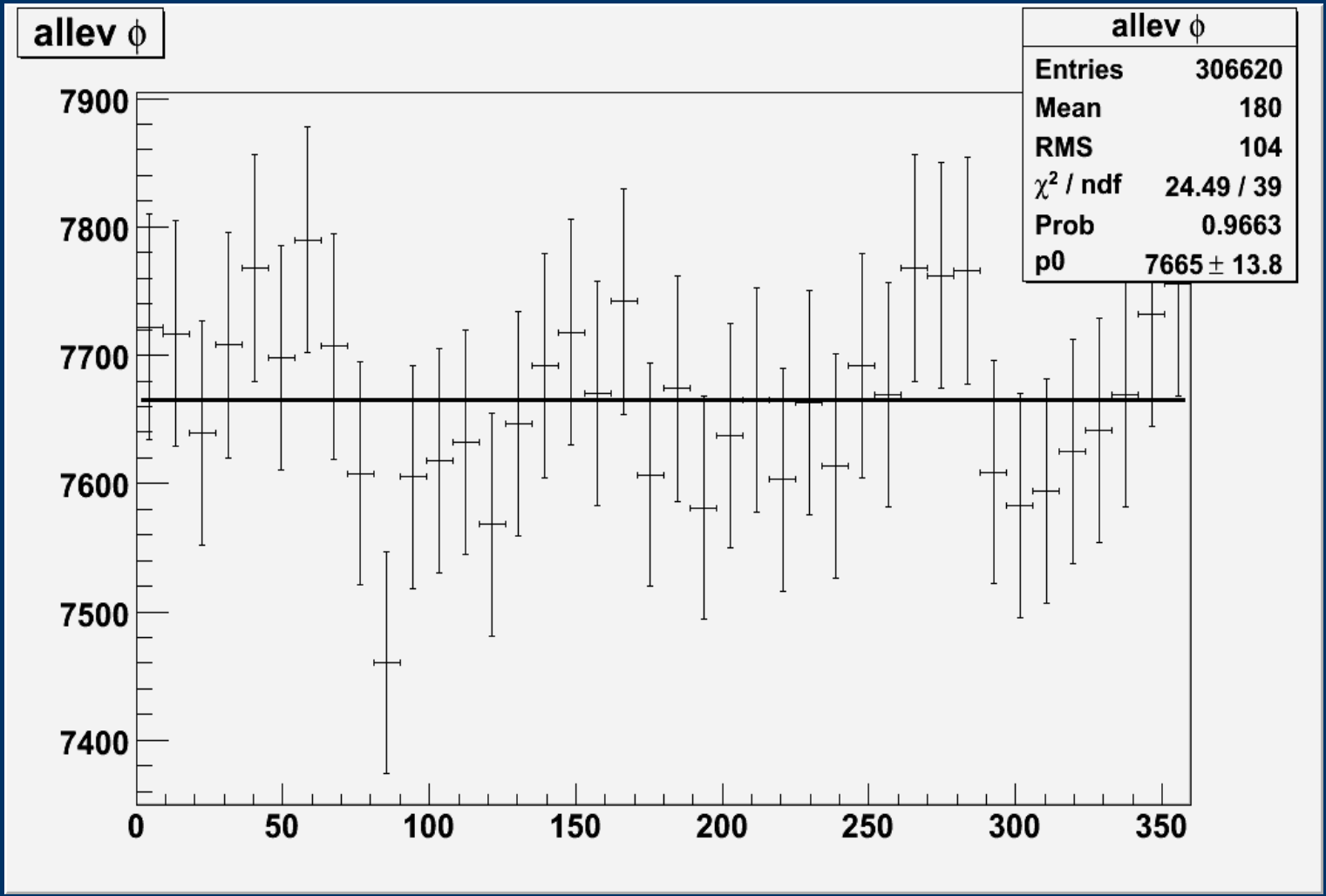
- Fit to double cos function

Toy MC fits (4 out of 4)



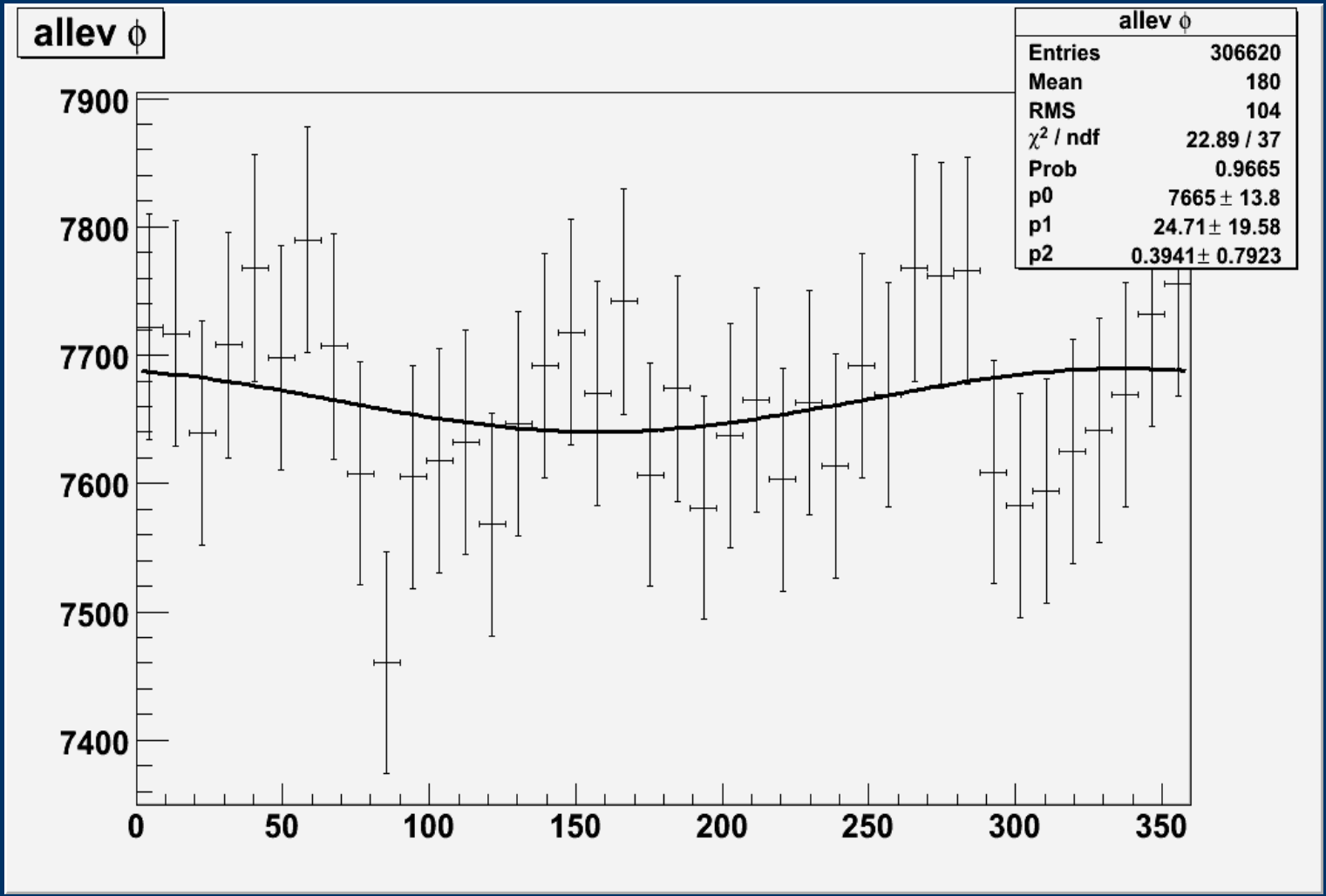
- Fit to double and single combination

DC06 MC fits (1 out of 4)



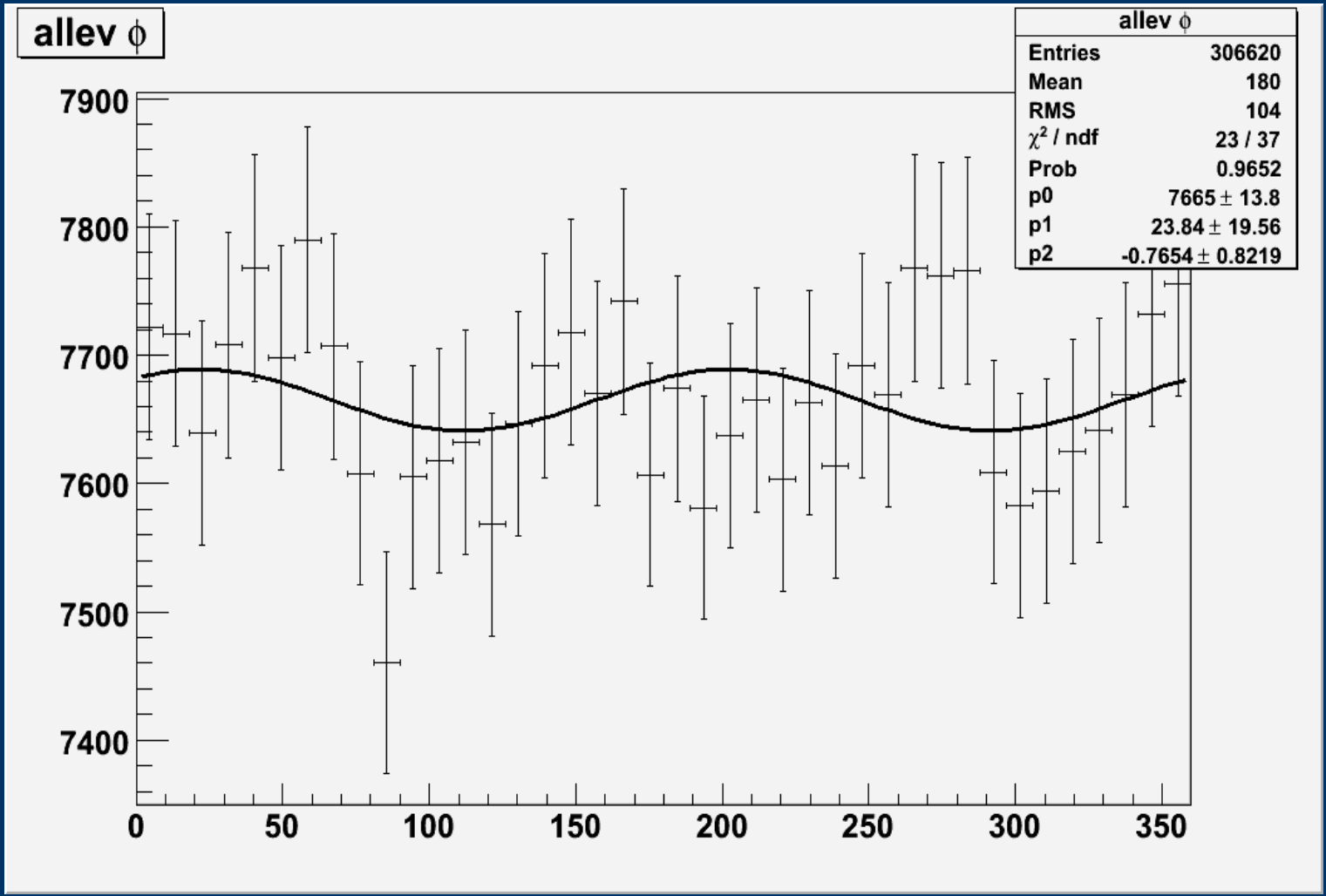
- Fit to single, flat distribution

DC06 MC fits (2 out of 4)



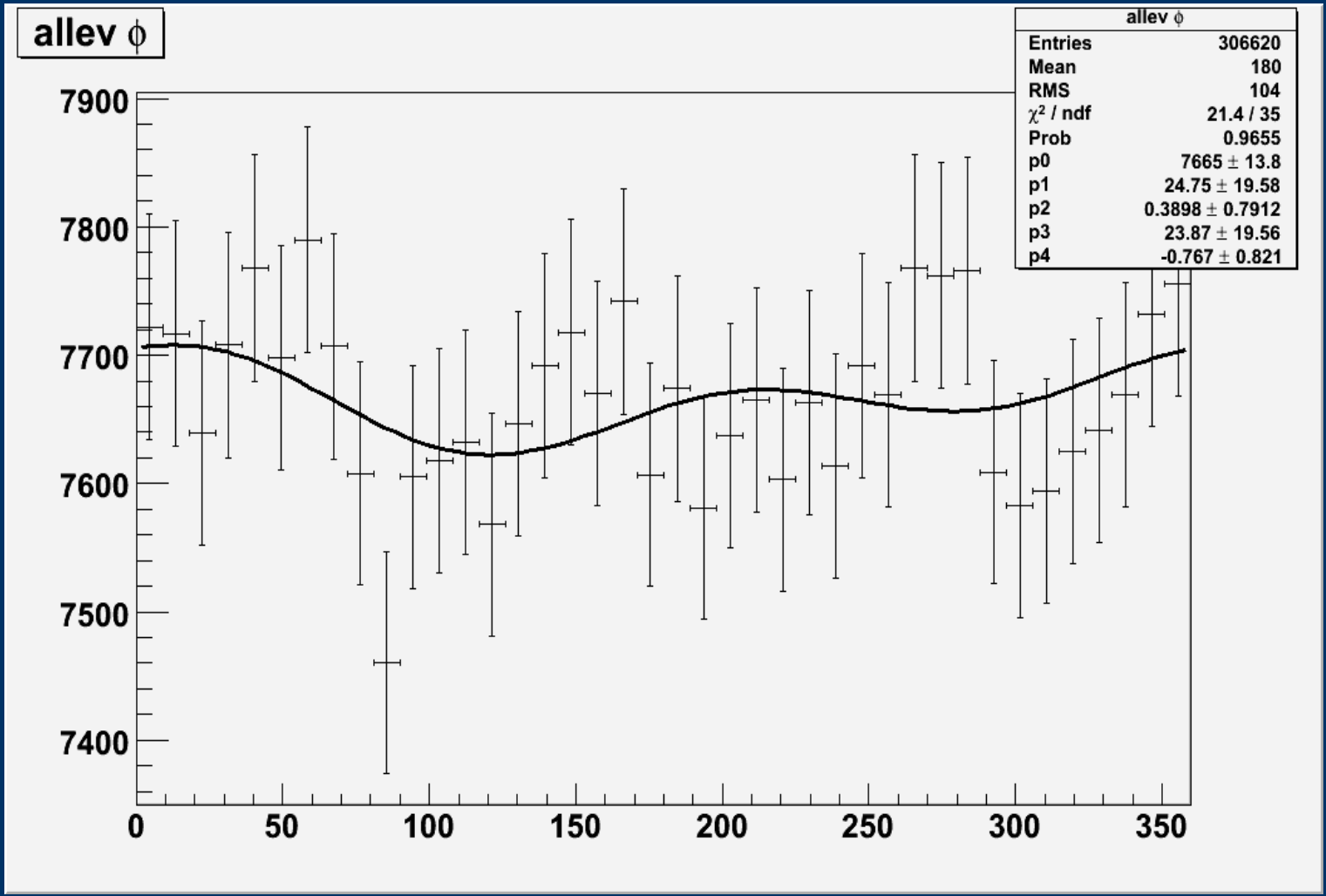
- Fit to single cos function

DC06 MC fits (3 out of 4)



- Fit to double cos function

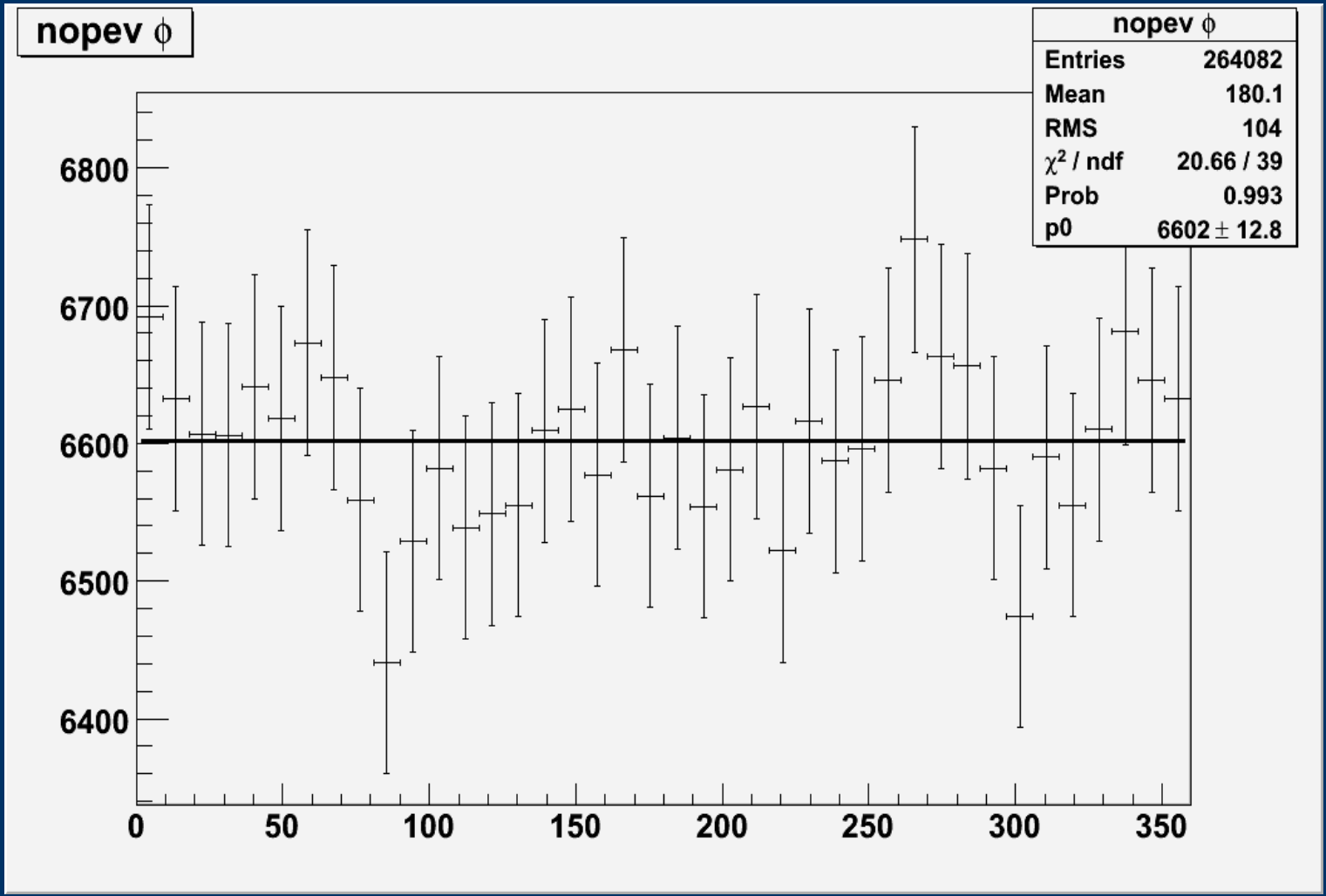
DC06 MC fits (4 out of 4)



- Fit to double and single combination

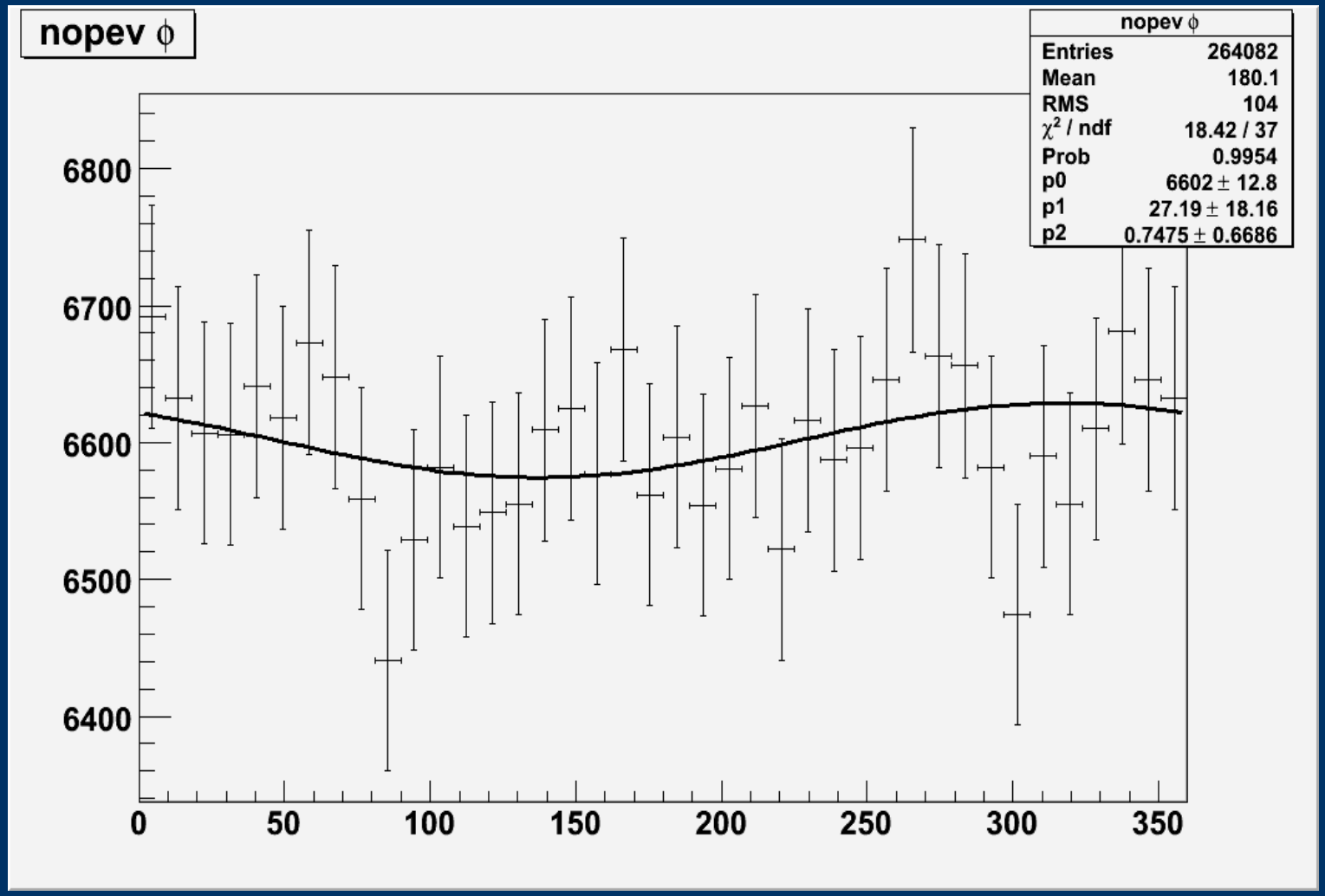
Backup

DC06 MC fits (1 out of 4)



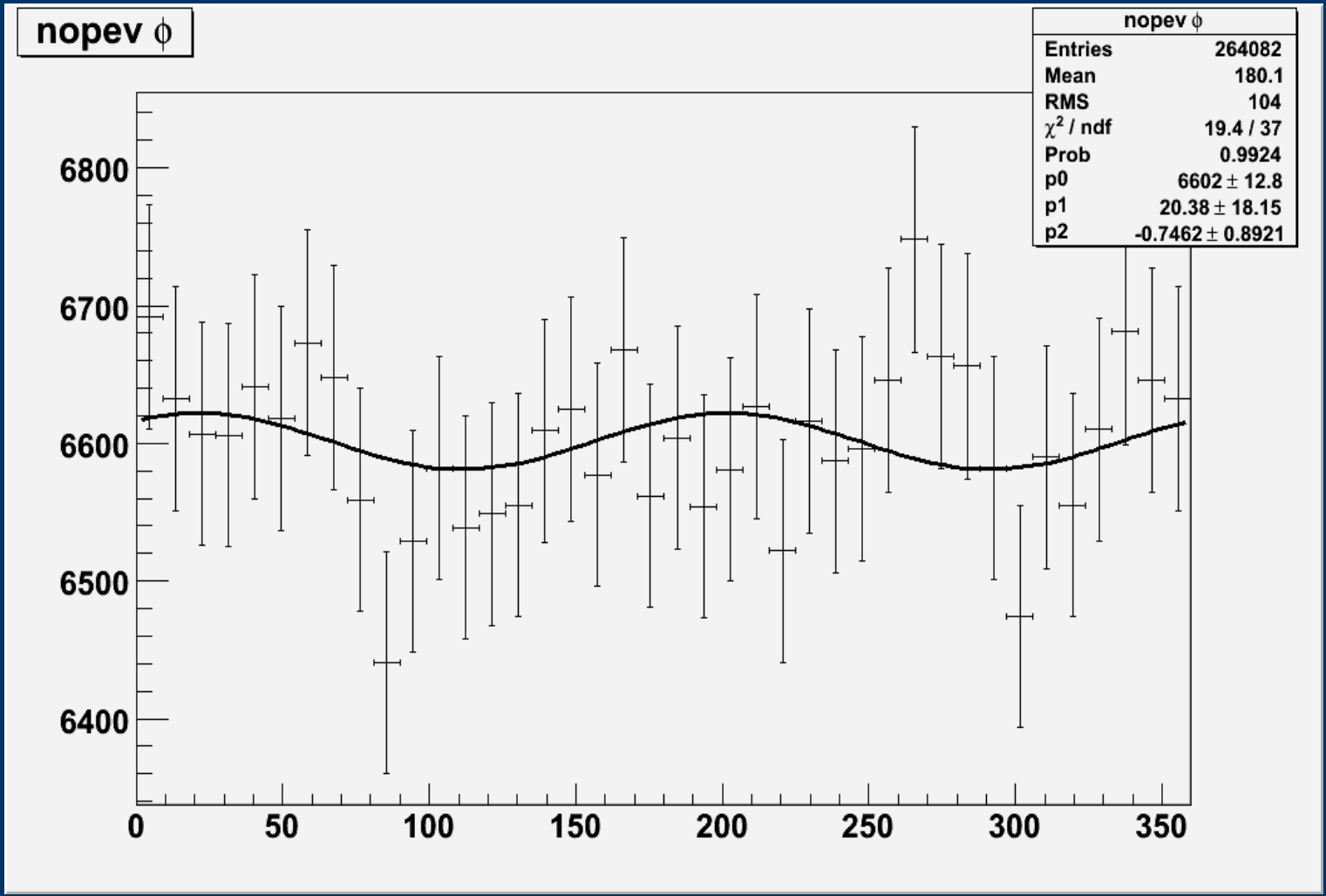
- Fit to single, flat distribution, no photon

DC06 MC fits (2 out of 4)



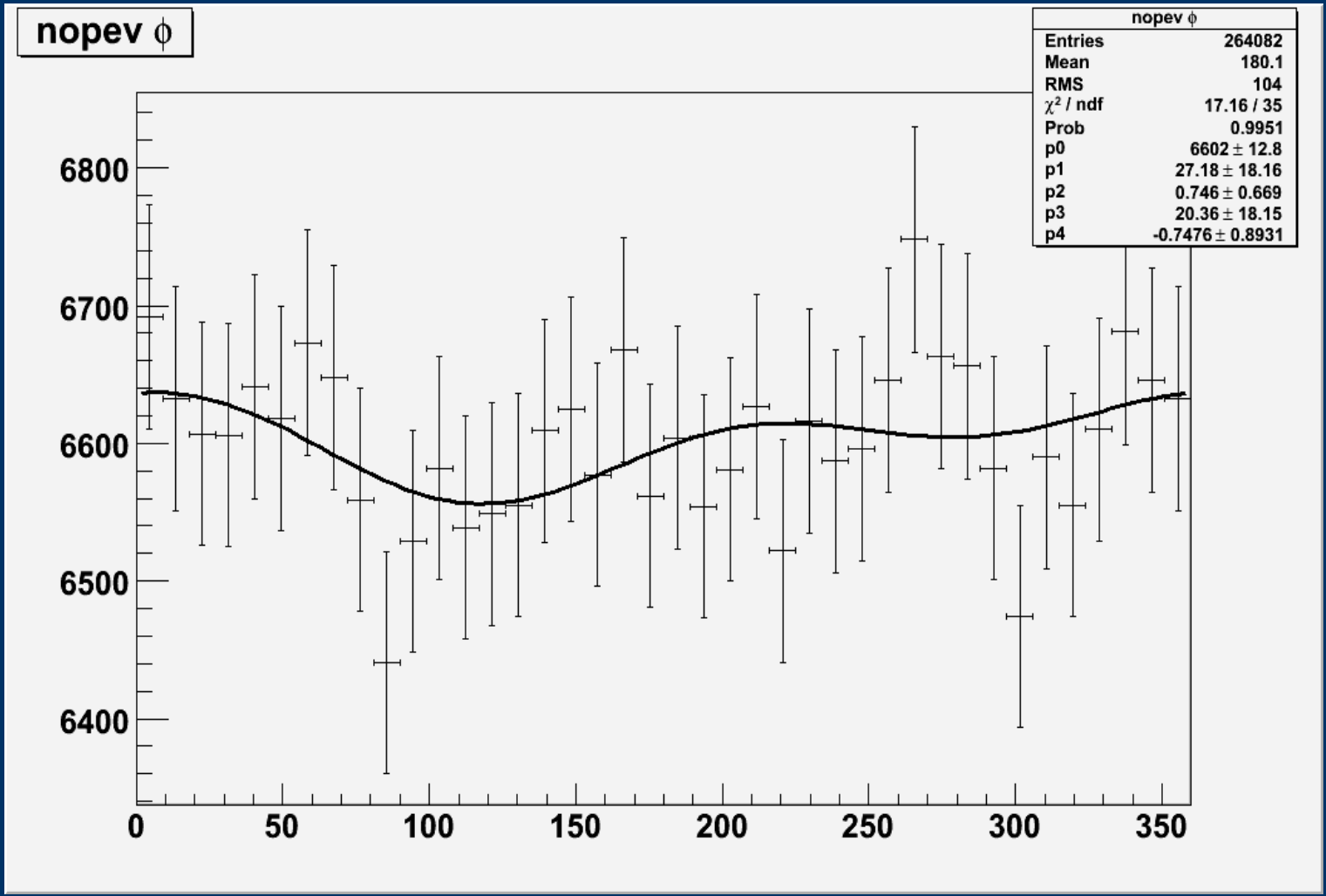
- Fit to single cos function,no photon

DC06 MC fits (3 out of 4)



- Fit to double cos function,no photon

DC06 MC fits (4 out of 4)



- Fit to double and single combination,no photon