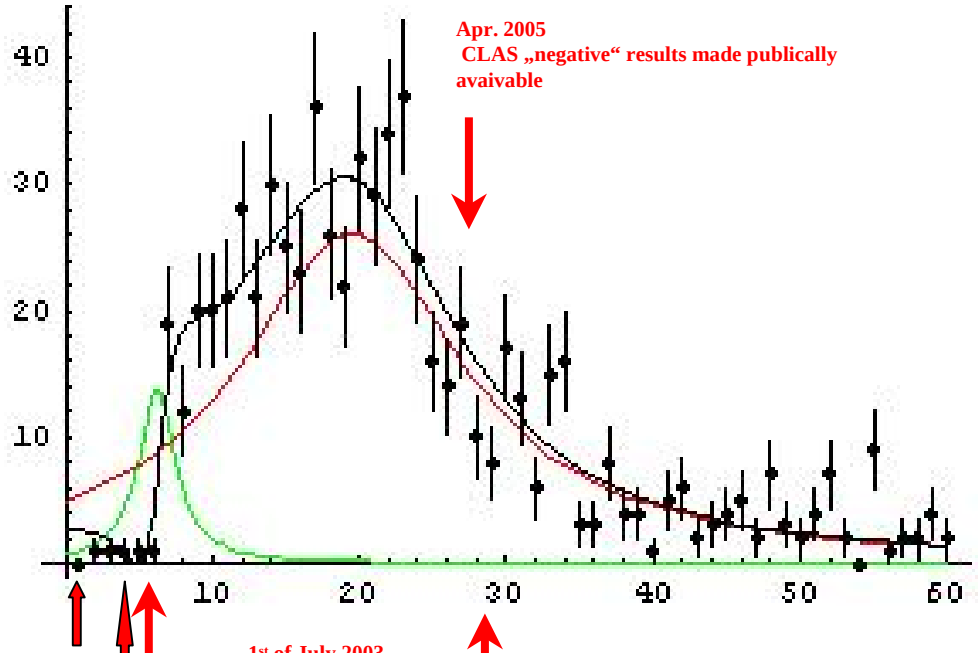
Two time scales in publication rate of preprints about Θ+



Grave stone from the Jaffe‘s talk at DIS 2005

http://agenda.hep.wisc.edu/conferenceDisplay.py?confId=a052

Data points – # of preprints which cited [T. Nakano et al. '03] sorted by posting date to ArXiV

bin size = 1 month, # of points = 693

One sees wide & narrow structures. The latter is very similar to the ρ-ω interference pattern in pion e.m. FF. Therefore, we fit the data by the coherent sum of 2 Breit-Wigner

$$\text{publ rate}(t) = \left| \frac{A}{(t-t_0)+i\frac{T_0}{2}} + \frac{Be^{i\delta}}{(t-t_1)+i\frac{T_1}{2}} \right|^2$$

The best fit parameters:

t_0 = 8th of July 2003, 17 o'clock

t_1 = 16th of July 2004, 13 o'clock

T_0 = 3 months, T_1 = 18 month 24 days

$\delta \simeq 100°$ See curves!

We found that publications about Θ^+ were driven by phenomena with ≈3 months effect and another with ~1,5 year characteristic time. Our conjecture is that the first is caused by the publication in NYT newspaper. Origin of the second & nature of quantum interference remains unclear!