

Likelihood Fit Results-MC

Scan:

$$\Delta m_d = 0.485 \pm 0.015 \text{ ps}^{-1}$$

1-D Minuit:

$$\Delta m_d = 0.485 \pm 0.016 \text{ ps}^{-1}$$

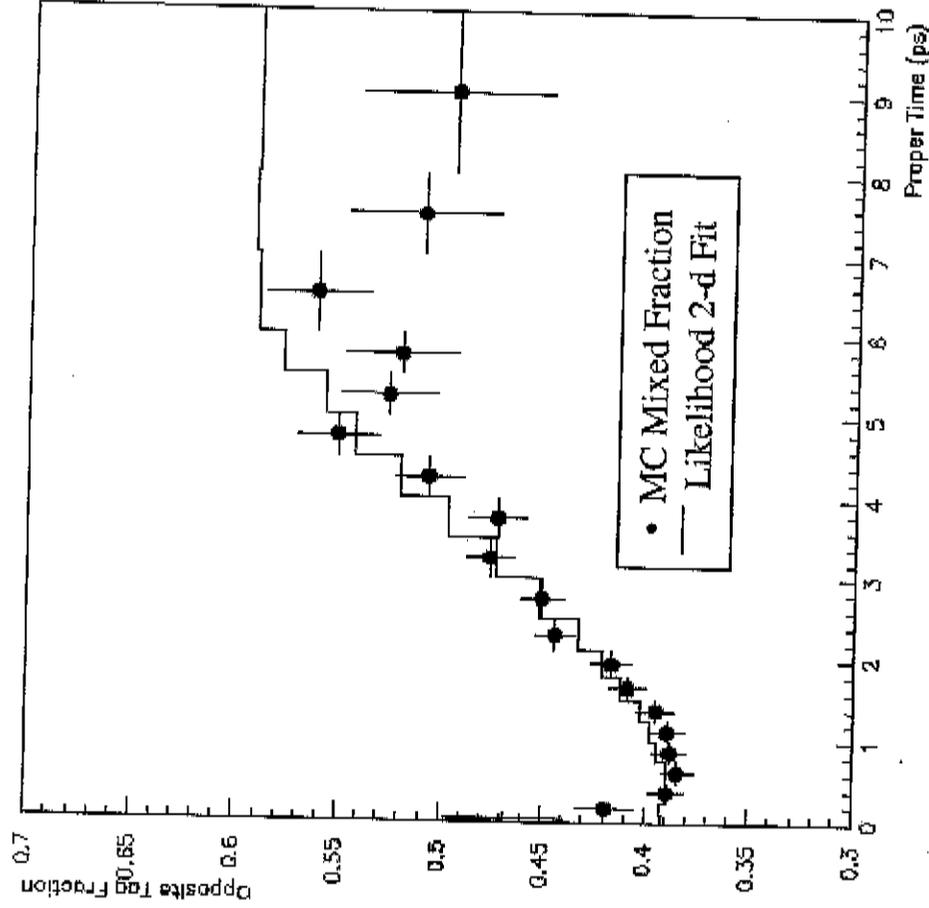
2-D Minuit:

$$\Delta m_d = 0.487 \pm 0.016 \text{ ps}^{-1}$$

$$\text{RSF} = 0.802 \pm 0.010$$

number of vertices: 35796

The SLD Monte Carlo has $\Delta m_d = 0.484 \text{ ps}^{-1}$ and a right sign fraction of 0.797.



Likelihood Fit Results-Data

Scan:

$$\Delta m_d = 0.540 \pm 0.035 \text{ ps}^{-1}$$

1-D Minuit:

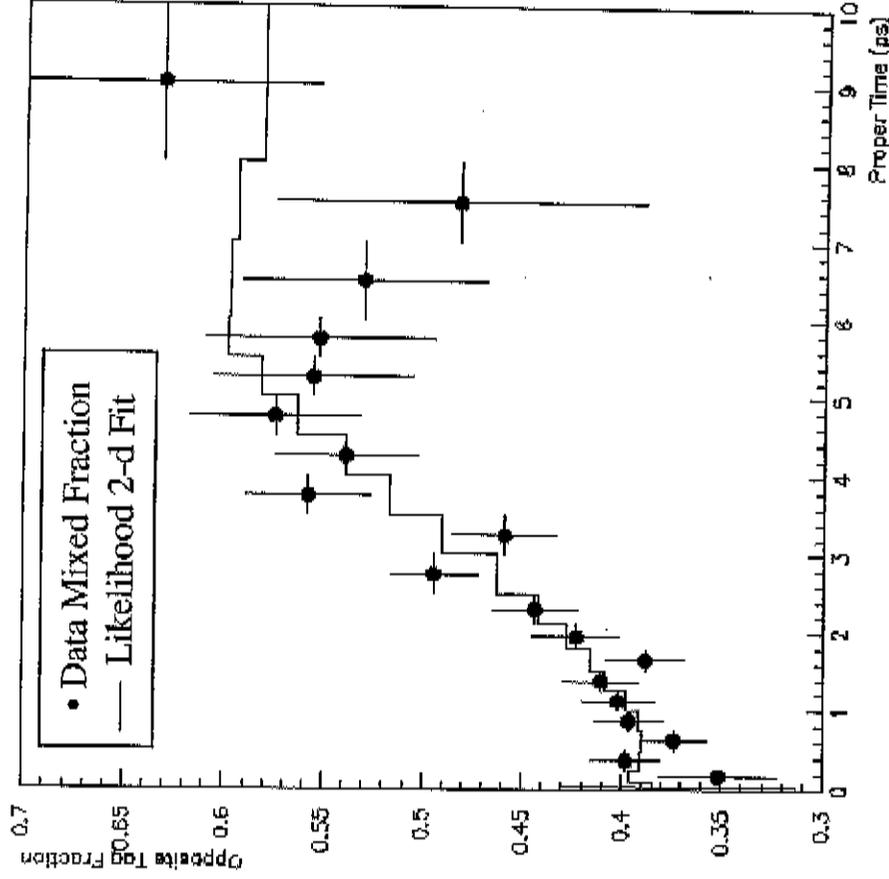
$$\Delta m_d = 0.540 \pm 0.033 \text{ ps}^{-1}$$

2-D Minuit:

$$\Delta m_d = 0.545 \pm 0.034 \text{ ps}^{-1}$$

$$\text{RSF} = 0.814 \pm 0.023$$

number of vertices: 7844



The world average for Δm_d as of Moriond 2001 is $0.484 \pm 0.010 \text{ ps}^{-1}$.

Systematic Errors

B_d

W/Kaons

B_u Lifetime	± 0.001
B_d Lifetime	± 0.002
B_s Lifetime	± 0.000
Baryon Lifetime	± 0.001
B_u Fraction	± 0.005
B_d Fraction	± 0.003
B_s Fraction	± 0.002
Baryon Fraction	± 0.002
Udsc Fraction	± 0.001
B_u RSF	± 0.012
Baryon RSF	± 0.007
Δm_s	± 0.001
Boost Resolution	± 0.018
Decay Length Resolution	± 0.001
Tracking Resolution	± 0.005
Track Multiplicities	± 0.004
π^\pm Misidentification	± 0.003
Initial State Tagging	± 0.005

#2
#3
*#1

SLD

Preliminary Result:

$$\Delta m_d = 0.545 \pm 0.034 \pm 0.025 \text{ ps}^{-1}$$

Statistics limited!

(First time for
Kaon analysis!)