

M atthew J ones/ Riei Ishiziki

Purdue U niversity

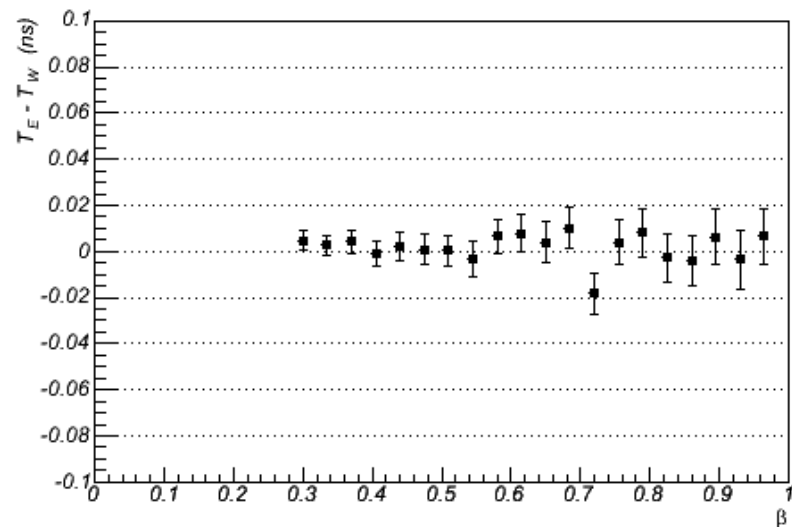
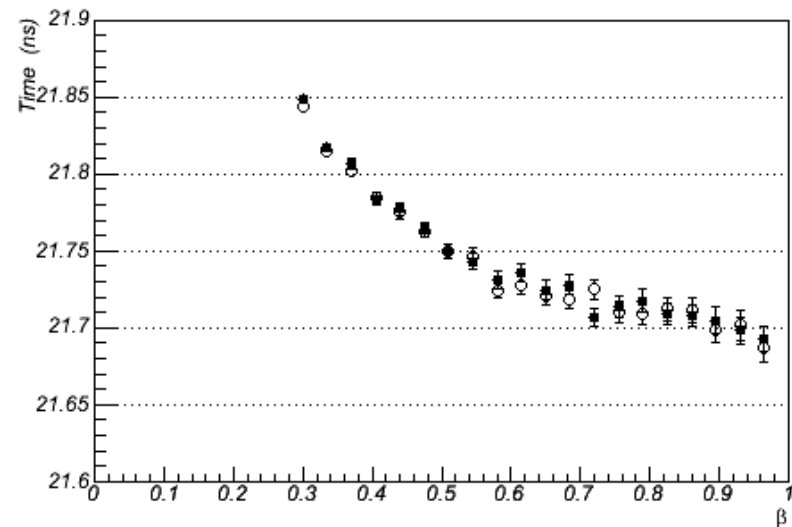
Photon Transport Monte Carlo

- Update on bias as a function of velocity
- Some interpretation

D ecember 13, 2004

Bias as a function of velocity

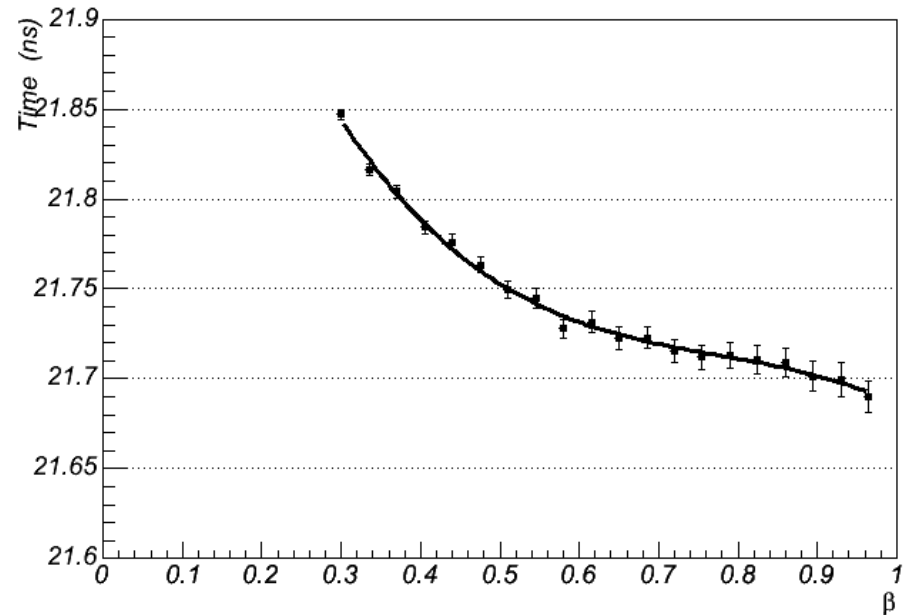
- Previous result shown in [November](#) was for a leading edge discriminator, not a constant fraction discriminator.
- Most of the bias was from the large bias in pulse height as a function of velocity



Bias as a function of velocity

- Bias is not very linear:

n	χ^2/dof
3	30.0/17
4	9.5/16



Interpretation

- Fast particle has sharper leading edge – earlier time measurement at constant fraction of pulse height.
- At $\beta < 0.5$, speed of light in the bar is faster than the speed of the particle
- Expect behavior to change at about this point.

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