

E02-013 Analysis Update

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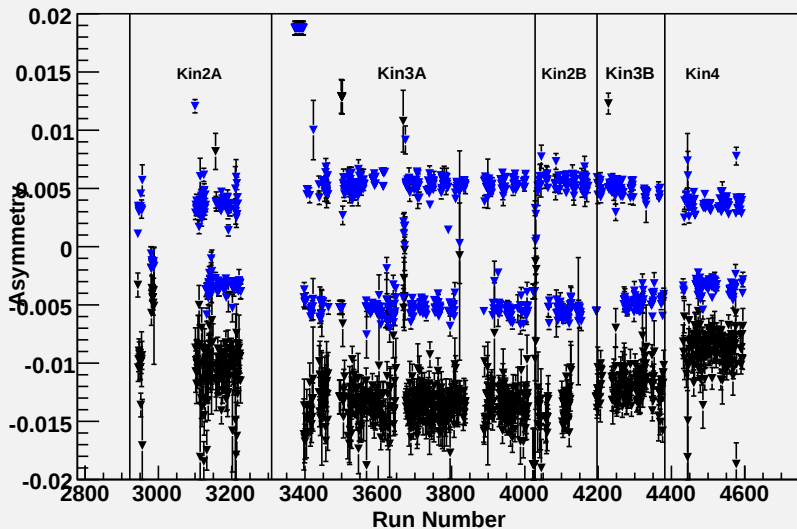
- ▶ Found sign flip in asymmetry for Kin 2
- ▶ My $A_{\perp}$ and $A_{\parallel}$ components for Kin 2-4
- ▶ Continuing with GEANT4

Polarization Calculation

	Linac E (GeV)	Wien Angle (deg)	Beam Angle (deg)	Pol.
Kin1	0.738	-5.29	179.117	-1.000
Kin2a	0.650	76.43	-17.405	0.954
Kin3a	0.650	92.25	-179.506	-1.000
Kin2b	0.650	92.25	-1.589	1.000
Kin3b	0.650	92.49	-179.260	-1.000
Kin4	0.512	57.21	-175.654	-0.997

- Moller confirms result

Corrected Asymmetry



Asymmetry Components

$$A_{\perp} = \frac{2\sqrt{\tau(\tau+1)}\tan(\theta/2)\Lambda}{\Lambda^2 + (\tau + 2\tau(1+\tau)\tan^2(\theta/2))} \quad (1)$$

$$A_{\parallel} = \frac{2\tau\sqrt{1+\tau+(1+\tau)^2\tan^2(\theta/2)}\tan(\theta/2)}{\Lambda^2 + (\tau + 2\tau(1+\tau)\tan^2(\theta/2))} \quad (2)$$

	$A_{\text{phys}} =$	$A_{\perp} \sin \theta^* \cos \phi^* +$	$A_{\parallel} \cos \theta^*$
Kin2	-0.179 ± 0.027	-0.160 ± 0.027	-0.019 ± 0.000
Kin3	-0.149 ± 0.037	-0.182 ± 0.036	0.033 ± 0.000
Kin4	-0.248 ± 0.022	-0.184 ± 0.023	-0.063 ± 0.000