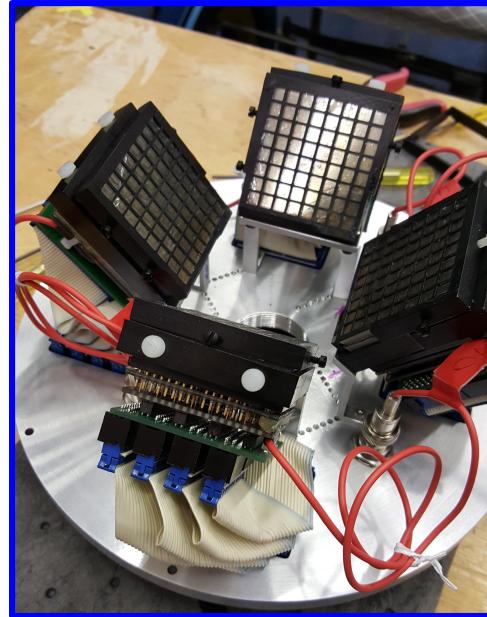


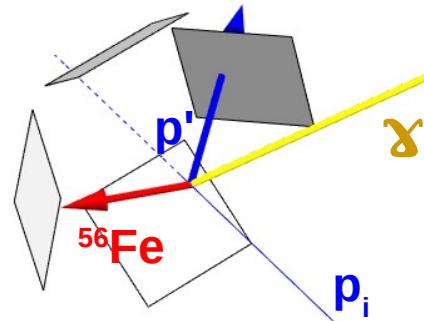
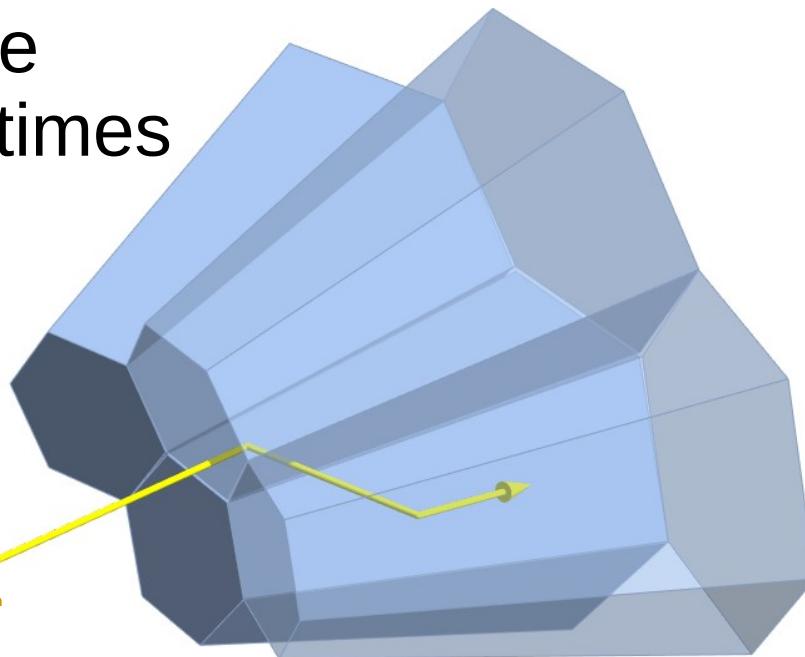
Leo Kirsch
UC Berkeley
4th year PhD student



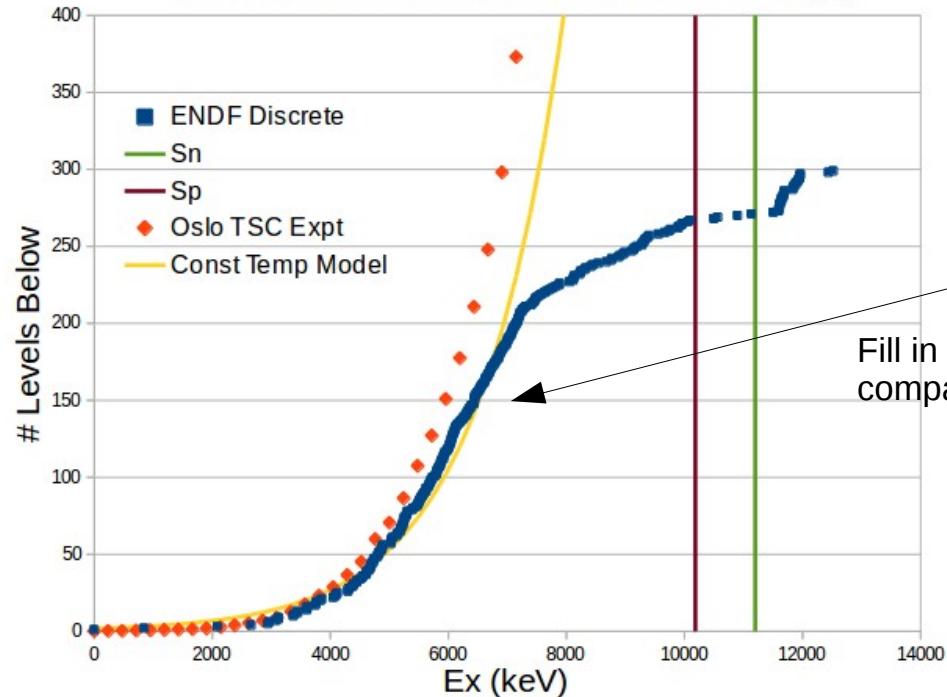
LBNL GRETINA Team
 $^{56}\text{Fe}(\text{p},\text{p}'\gamma)$ @ Argonne



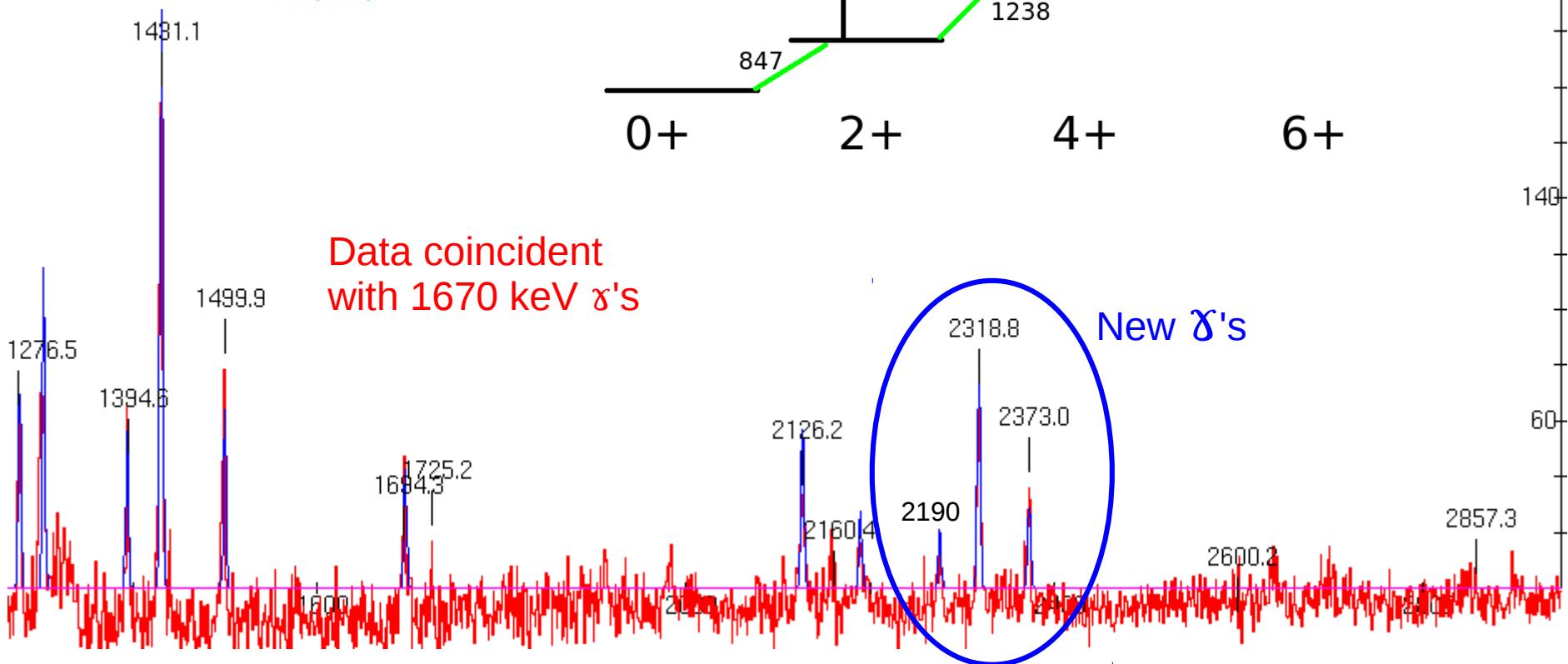
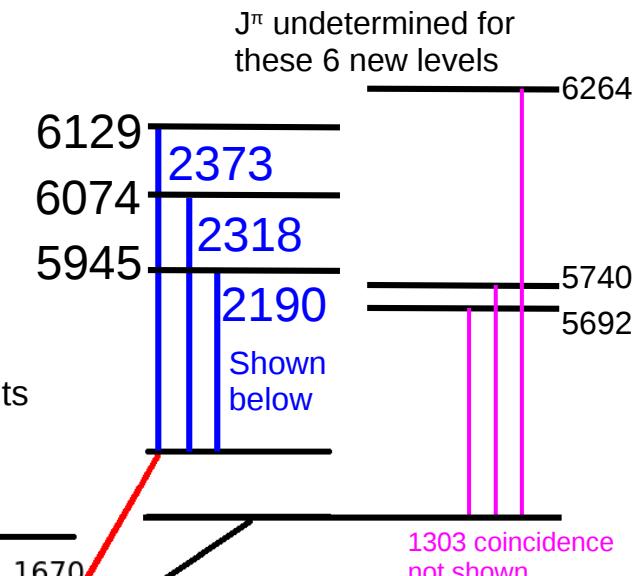
Level Scheme
Low lying lifetimes



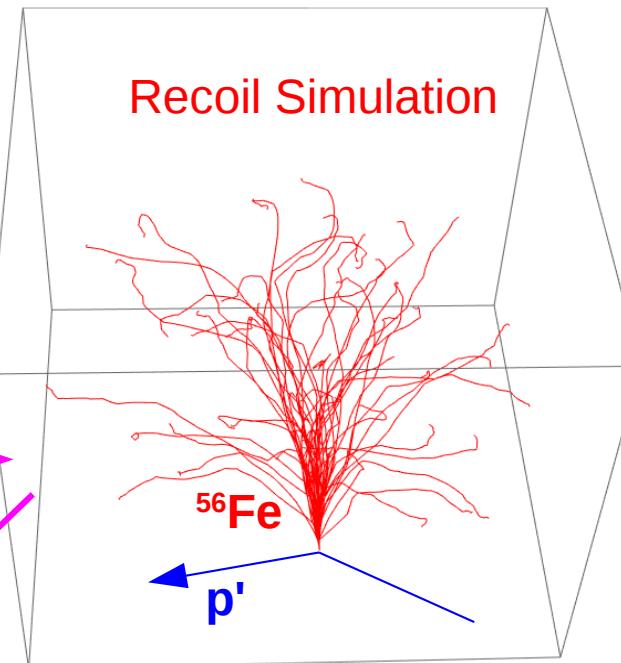
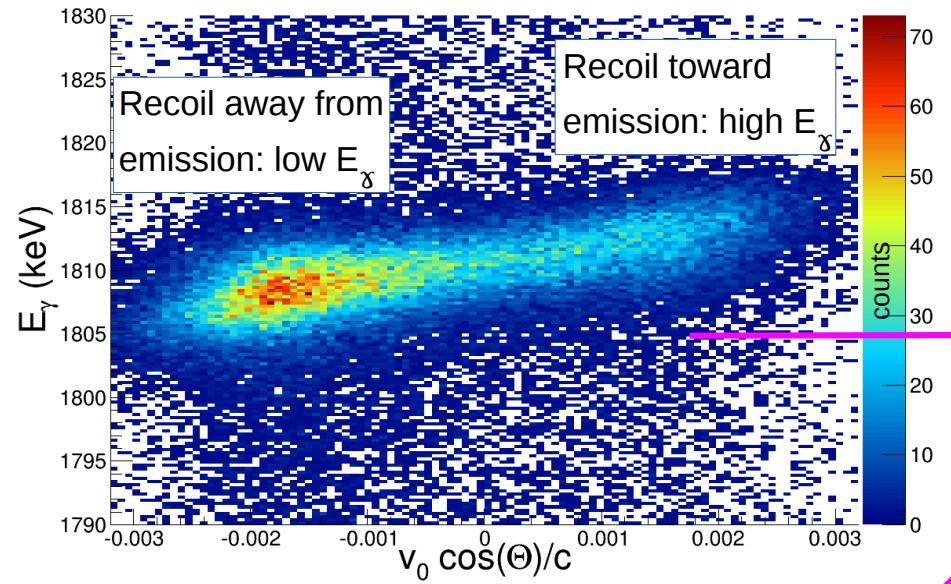
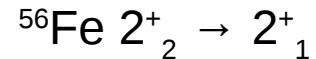
Cumulative Levels vs Excitation Energy



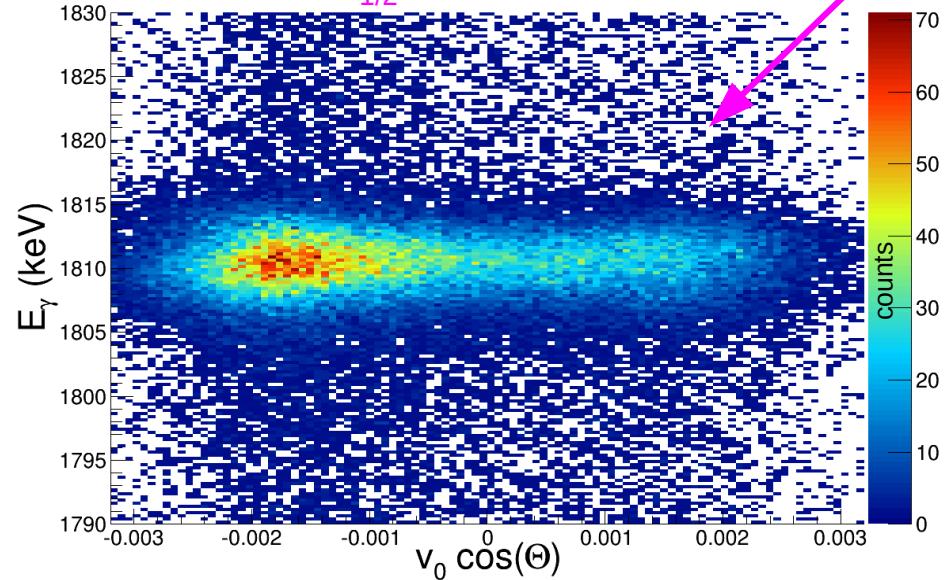
New Levels:



Doppler Shift



After $t_{1/2} = 30$ fs correction



Lvl(keV)	E_{γ} (keV)	Transition	$t_{1/2}$ (fs)	This Work	ENSDF Comparison
2657	1810	$2^+_2 \rightarrow 2^+_1$	33(2)	21(1)	(n,n')
2960	2113	$2^+_3 \rightarrow 2^+_1$	20(4)	28(3)	(p,p')
3120	2273	$1^+_1 \rightarrow 2^+_1$	20(8)	19(1)	24(11)
3123	1037	$4^+_2 \rightarrow 4^+_1$	51(4)	47(12)	50^{+50}_{-30}
3370	2523	$2^+_4 \rightarrow 2^+_1$	19(2)	17(3)	18(7)
3445	2598	$3^+_1 \rightarrow 2^+_1$	<52	29(5)	<28

Outgoing particle
not observed