

# E12-11-112 runplan

Patricia Solvignon

May 10, 2013

TABLE I: List of kinematics for left HRS and estimated beam time needed for the proposed experiment ( $z_{eff} = 14.0\text{cm}$ ,  $^3\text{He} = 30\text{ atm}$ ,  $^2\text{H} = 30\text{ atm}$  and  $^3\text{H} = 13\text{ atm}$ ).

kin#	$E$ (GeV)	$\theta$ (deg)	$E'$ (GeV)	$x_{range}$	$Q_{range}^2$ (GeV/c) <sup>2</sup>	Tg	I ( $\mu$ A)	psc	$R_{tot}$ (Hz)	$R_{phys}$ (Hz)	time (hrs)	Total (hrs)
1.0	4.4	17.0	3.710	0.90-1.41	1.38-1.48	<sup>3</sup> He	25.0	1	3167	145	6.0	<b>28.3</b>
	4.4	17.0	3.710			<sup>3</sup> H	25.0	1	2928	94	9.3	
	4.4	17.0	3.710			<sup>2</sup> H	25.0	1	3506	229	13.0	
1.1	4.4	17.0	3.980	1.41-3.00	1.48-1.58	<sup>3</sup> He	25.0	1	275	1.6	75.0	<b>188.6</b>
	4.4	17.0	3.980			<sup>3</sup> H	25.0	1	265	1.0	113.6	
2.0	4.4	19.0	3.535	0.88-1.26	1.64-1.75	<sup>3</sup> He	25.0	1	1338	62	5.0	<b>21.1</b>
	4.4	19.0	3.535			<sup>3</sup> H	25.0	1	1241	41	7.7	
	4.4	19.0	3.535			<sup>2</sup> H	25.0	1	1331	122	8.4	
2.1	4.4	19.0	3.790	1.26-2.10	1.75-1.88	<sup>3</sup> He	25.0	1	193	1.8	30.0	<b>162.9</b>
	4.4	19.0	3.790			<sup>3</sup> H	25.0	1	184	1.2	45.5	
	4.4	19.0	3.790			<sup>2</sup> H	25.0	1	182	1.5	87.4	
3.0	2.2	22.0	1.870	0.80-1.20	0.58-0.62	<sup>3</sup> He	25.0	6	4563	217	3.5	<b>15.9</b>
	2.2	22.0	1.870			<sup>3</sup> H	25.0	5	4998	160	4.8	
	2.2	22.0	1.870			<sup>2</sup> H	25.0	6	4954	315	7.7	
4.0	2.2	26.2	1.770	0.86-1.17	0.78-0.82	<sup>3</sup> He	25.0	2	3606	187	3.5	<b>15.7</b>
	2.2	26.2	1.770			<sup>3</sup> H	25.0	2	3285	118	5.6	
	2.2	26.2	1.770			<sup>2</sup> H	25.0	2	3999	285	6.6	
5.0	2.2	30.3	1.665	0.88-1.13	0.97-1.03	<sup>3</sup> He	25.0	1	2303	114	3.5	<b>14.9</b>
	2.2	30.3	1.665			<sup>3</sup> H	25.0	1	2097	73	5.5	
	2.2	30.3	1.665			<sup>2</sup> H	25.0	1	2603	187	5.9	
Total time needed											<b>447.4 hours</b> <b>(<math>\approx</math> 19 days)</b>	

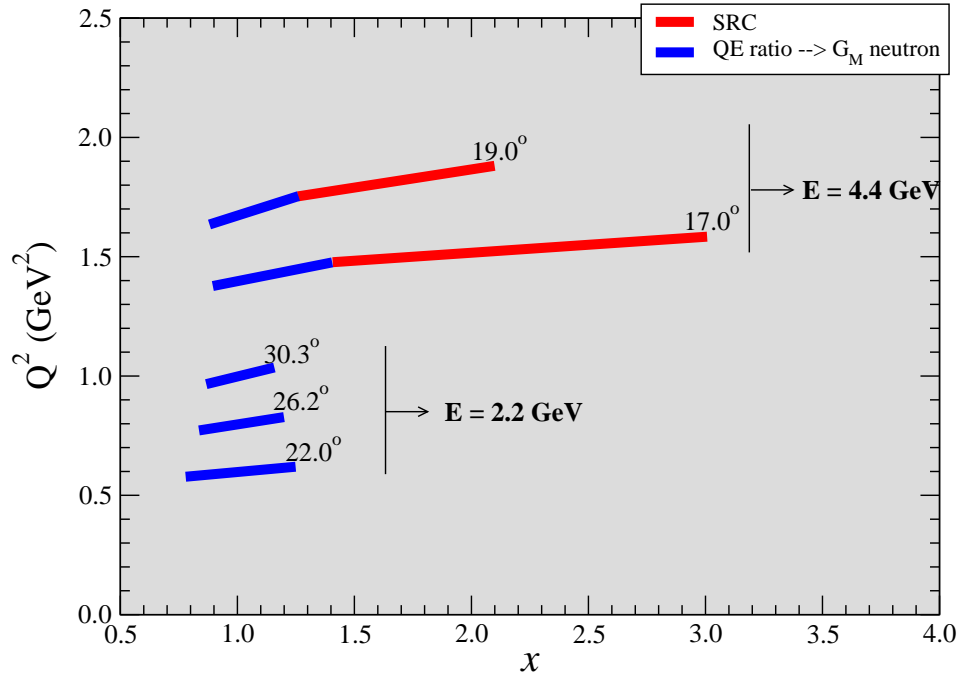


FIG. 1: Kinematics coverage

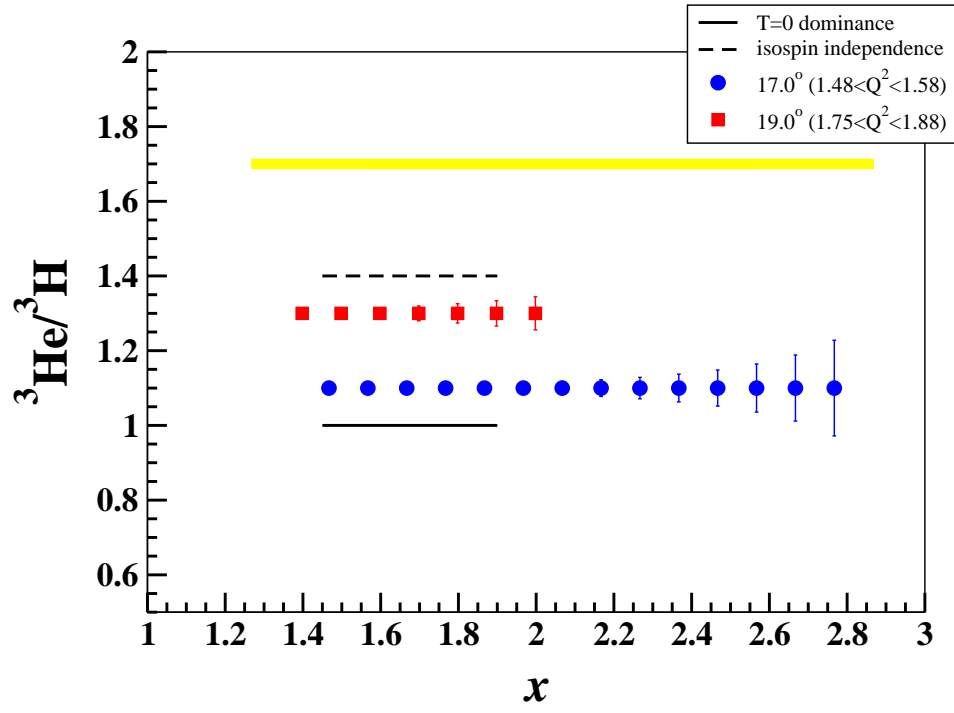


FIG. 2: projected statistical precision. Yellow band shows the systematic error.