

➤ 将模拟作业的随机数从StcfRndmGenSvc改为RandomSvc, 输出的事例数变得正常

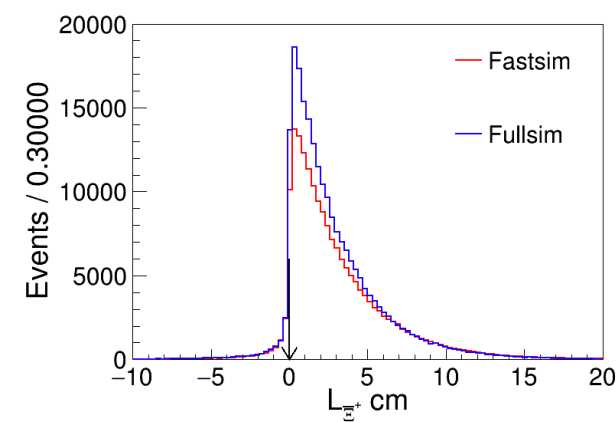
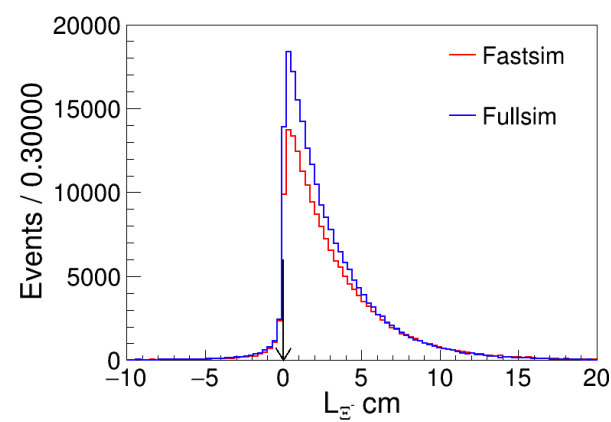
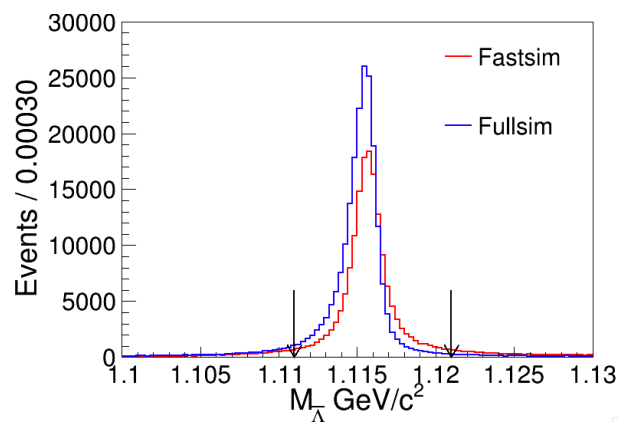
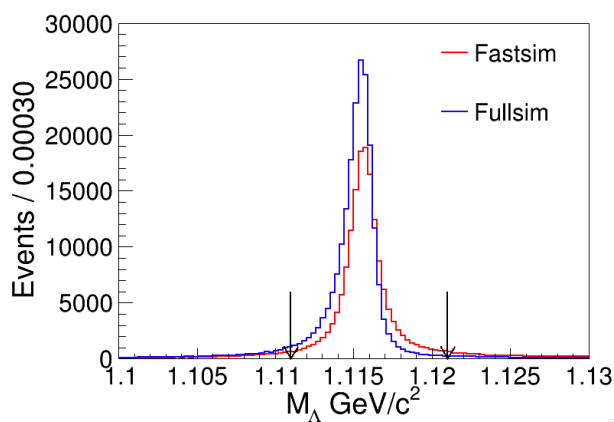
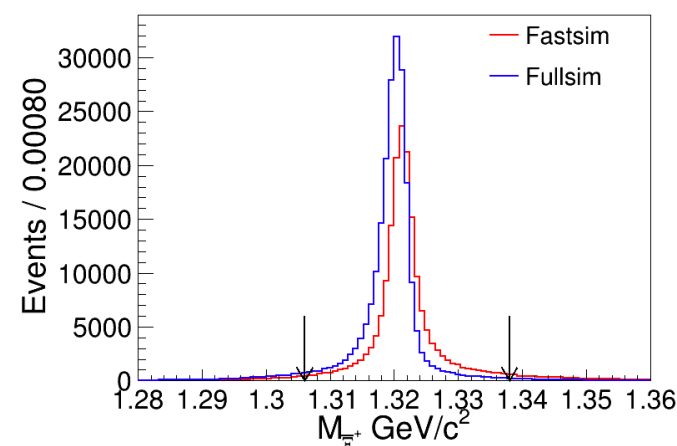
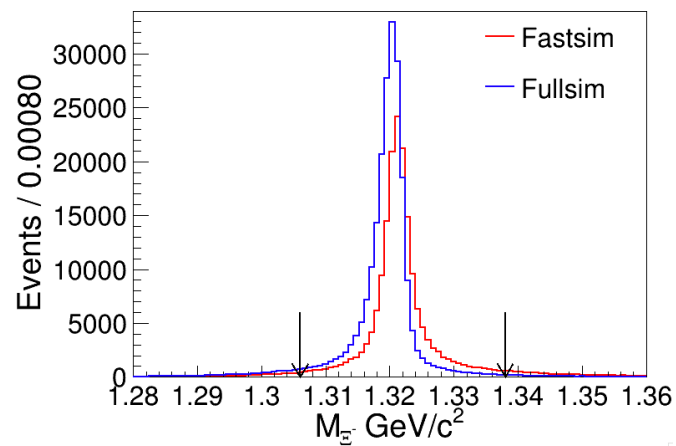
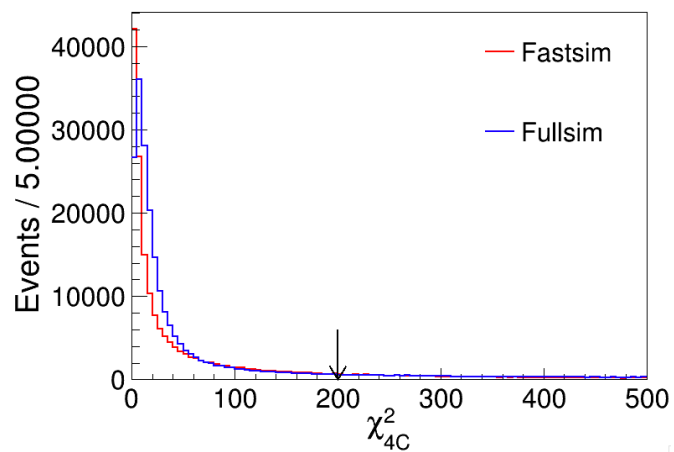
Fullsim	总和	绝对效率 (%)	相对效率 (%)
Total number	1002000	100.00	--
nGood charged track	531650	53.06	53.06
Sel Xi	425742	42.49	80.08
Sel Xibar	343071	34.24	80.58
KalmanKinematicFit	222211	22.18	64.77

Fastsim	总和	绝对效率 (%)	相对效率 (%)
Total number	1000100	100.00	--
nGood charged track	247752	24.77	24.77
Sel Xi	230558	23.05	93.06
Sel Xibar	213767	21.37	92.72
KalmanKinematicFit	188169	18.82	88.03

► 快模拟和全模拟对比

- 初选后的一些分布(没有加任何cut)

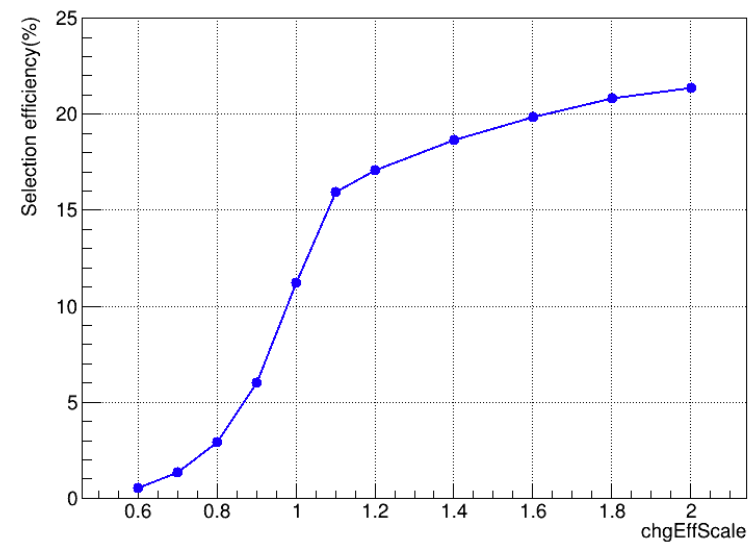
$N_{\text{fast}}=188169$, $N_{\text{full}}=222211$



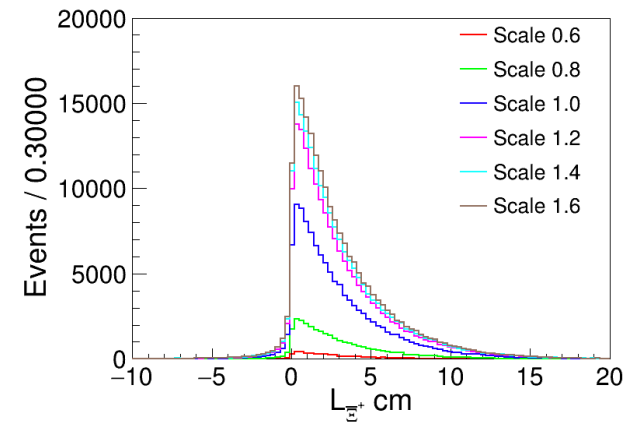
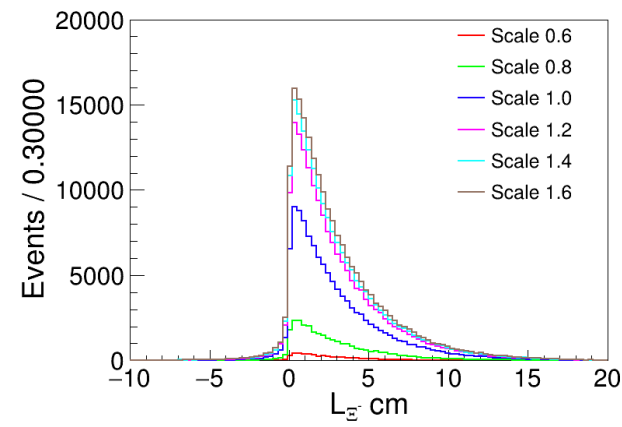
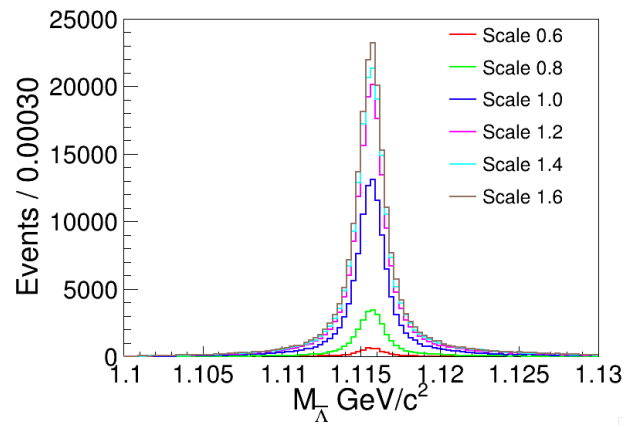
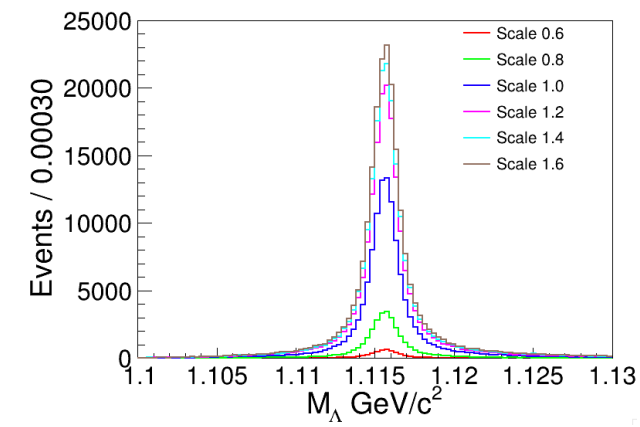
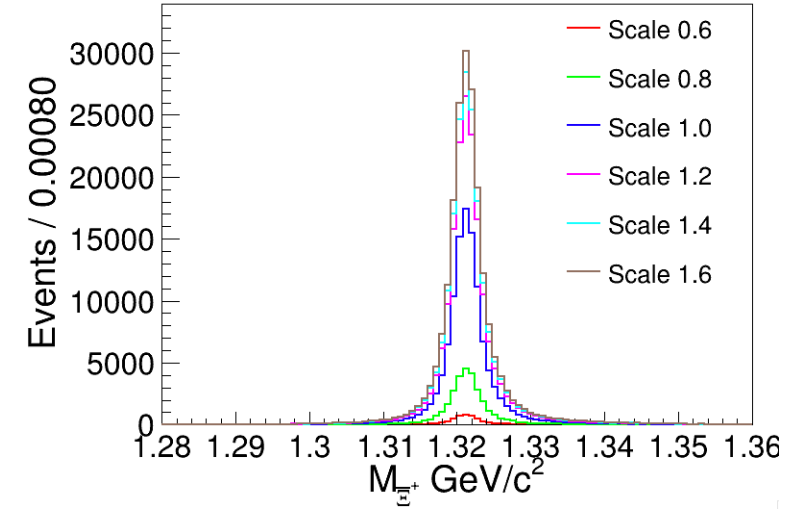
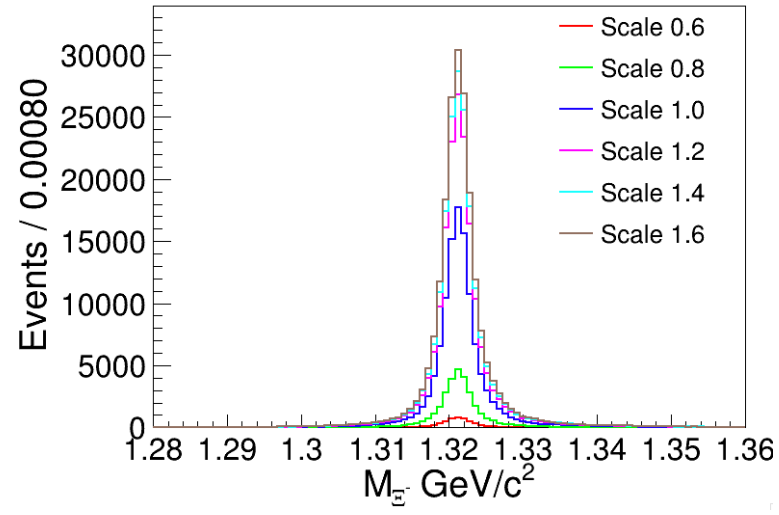
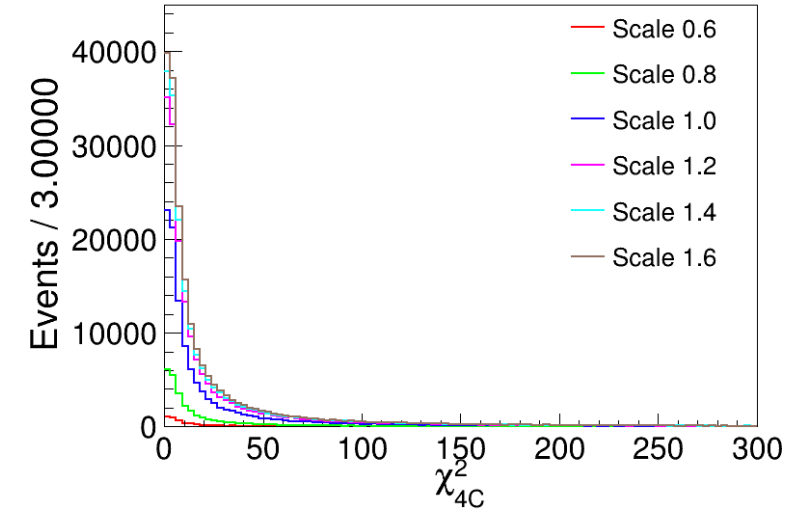
- Cut flow 对比

	Fullsim (no bkg mix)	Eff. (%)	Re. Eff.(%)	Fastsim	Eff. (%)	Re. Eff.(%)
	1,002,000	100.00		1,000,100	100.00	
Charged tracks	531,650	53.06	53.06	247,752	24.77	24.77
Λ 、 Ξ^- Rec.	425,742	42.49	80.08	230,558	23.05	93.06
$\bar{\Lambda}$ 、 $\bar{\Xi}^+$ Rec.	343,071	34.24	80.58	213,767	21.37	92.72
4C fit	222,211	22.18	64.77	188,169	18.82	88.03
χ^2_{4C} cut	199,284	19.89	89.68	167,619	16.76	89.08
$L_{\Xi^-/\bar{\Xi}^+}$ cuts	183,184	18.28	91.92	151,147	15.11	90.17
$M_{\Xi^-/\bar{\Xi}^+}$ cuts	175,782	17.54	95.96	136,964	13.69	90.62
$M_{\Lambda/\bar{\Lambda}}$ cuts	154,945	15.46	88.15	112,241	11.22	81.95

➤ 快模拟chgRecEffScale



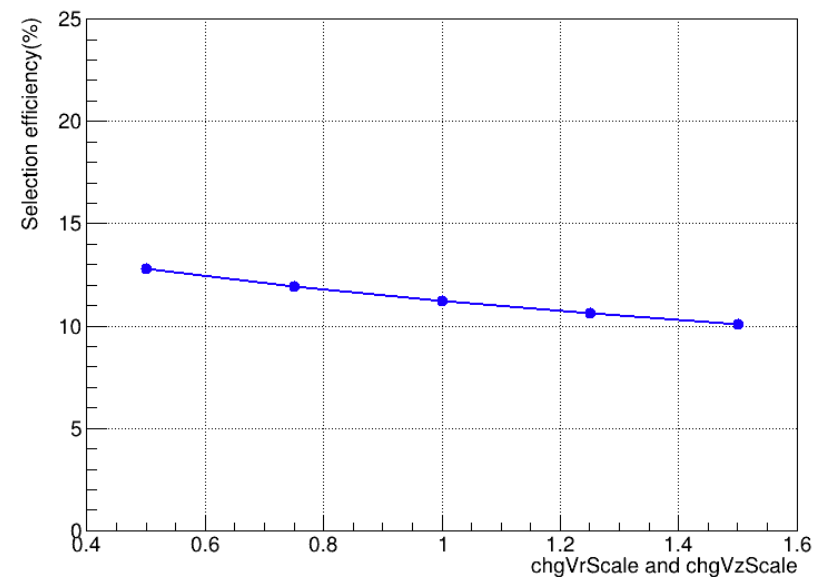
	0.6 Eff. (%)	0.7 Eff. (%)	0.8 Eff. (%)	0.9 Eff. (%)	No Scale Eff. (%)	1.1 Eff. (%)	1.2 Eff. (%)	1.4 Eff. (%)	1.6 Eff. (%)	1.8 Eff. (%)	2.0 Eff. (%)
Charged tracks	1.14	2.94	6.50	13.14	24.77	35.20	38.23	42.73	45.91	48.50	50.47
Λ 、 E^- Rec.	1.06	2.74	6.05	12.24	23.05	32.81	35.58	39.77	42.66	45.10	46.84
$\bar{\Lambda}$ 、 $\bar{E}^+$ Rec.	0.99	2.53	5.62	11.36	21.37	30.41	32.96	36.80	39.48	41.75	43.30
4C fit	0.86	2.23	4.94	9.98	18.82	26.72	28.94	32.16	34.48	36.44	37.72
χ^2_{4C} cut	0.77	1.99	4.40	8.89	16.76	23.79	25.73	28.52	30.57	32.29	33.39
$L_{E^-/\bar{E}^+}$ cuts	0.70	1.78	3.97	8.03	15.11	21.49	23.18	25.64	27.46	28.96	29.95
$M_{E^-/\bar{E}^+}$ cuts	0.64	1.61	3.59	7.27	13.69	19.43	20.90	23.05	24.60	25.88	26.73
$M_{\Lambda/\bar{\Lambda}}$ cuts	0.52	1.34	2.94	5.99	11.22	15.92	17.06	18.67	19.85	20.81	21.39

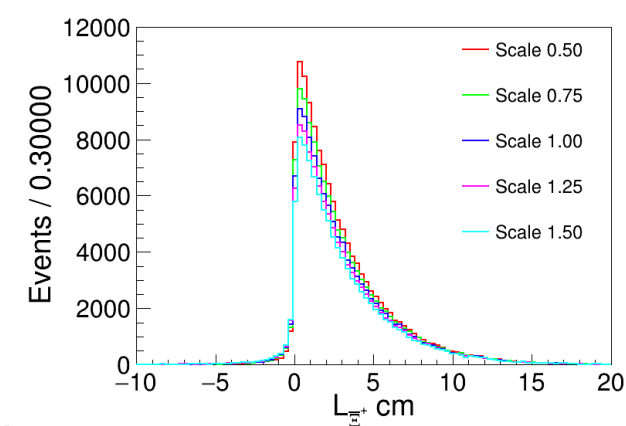
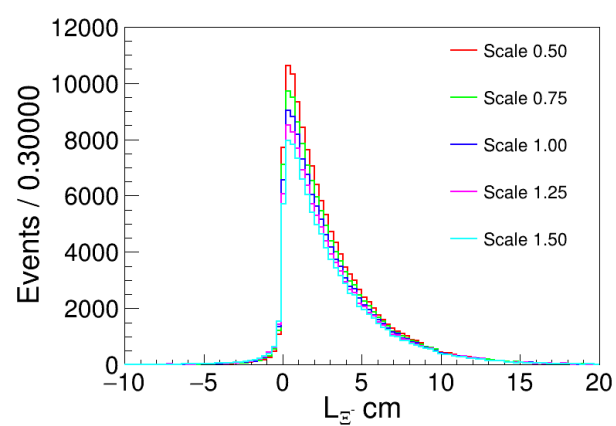
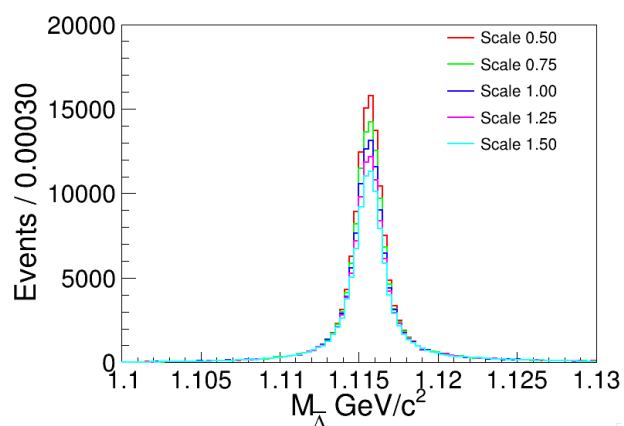
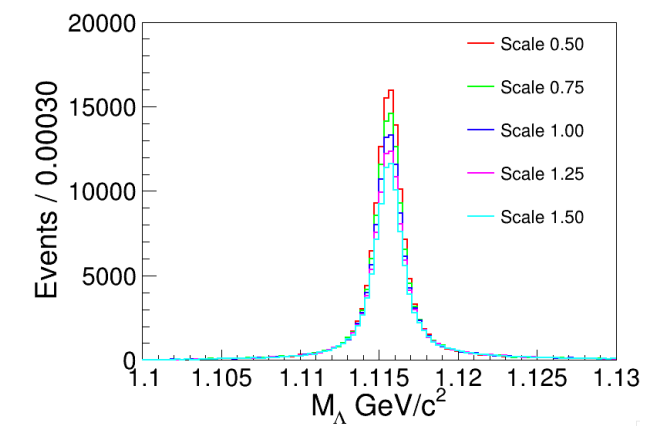
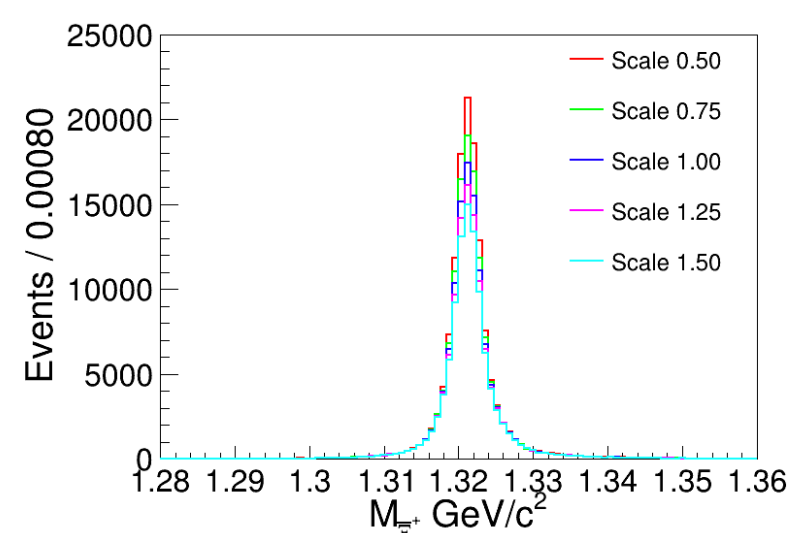
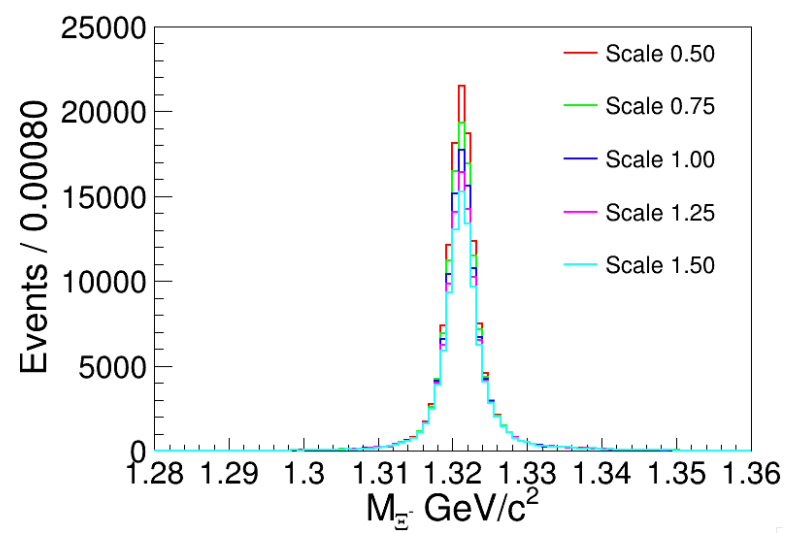
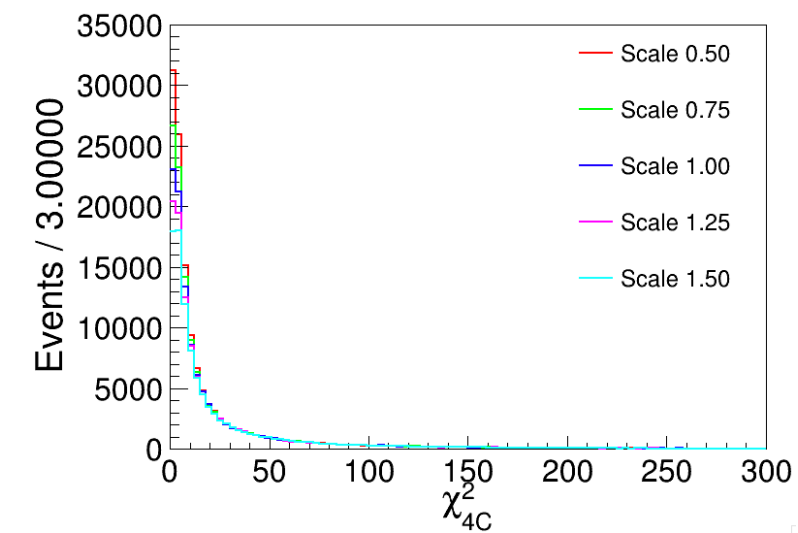


➤ 快模拟chgVrScale 和 chgVzScale

- 同时变化Vr 和 Vz

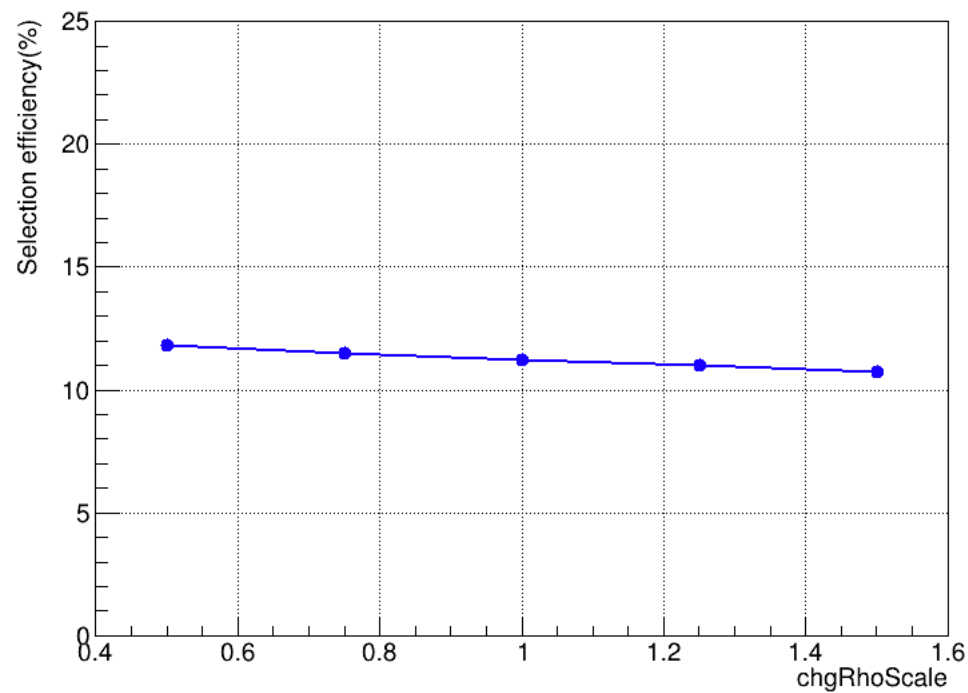
	0.50 Eff. (%)	0.75 Eff. (%)	No Scale Eff. (%)	1.25 Eff. (%)	1.50 Eff. (%)
Charged tracks	24.77	24.77	24.77	24.77	24.77
Λ 、 $\bar{E}^-$ Rec.	23.49	23.25	23.05	22.88	22.72
$\bar{\Lambda}$ 、 $\bar{E}^+$ Rec.	22.23	21.76	21.37	21.03	20.72
4C fit	19.82	19.29	18.82	18.42	18.06
χ^2_{4C} cut	17.91	17.29	16.76	16.30	15.88
$L_{E^-/\bar{E}^+}$ cuts	16.66	15.82	15.11	14.53	14.00
$M_{E^-/\bar{E}^+}$ cuts	15.22	14.39	13.69	13.11	12.58
$M_{\Lambda/\bar{\Lambda}}$ cuts	12.81	11.93	11.22	10.64	10.11

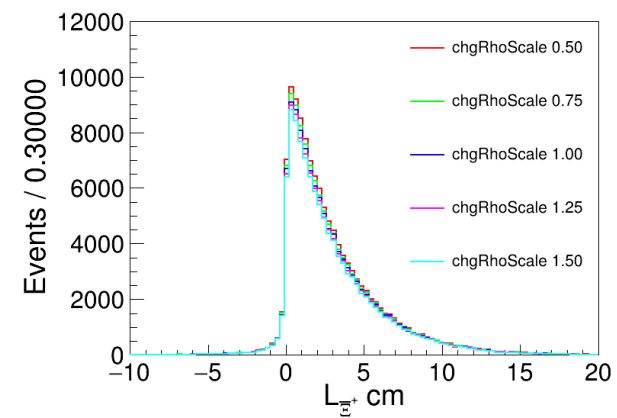
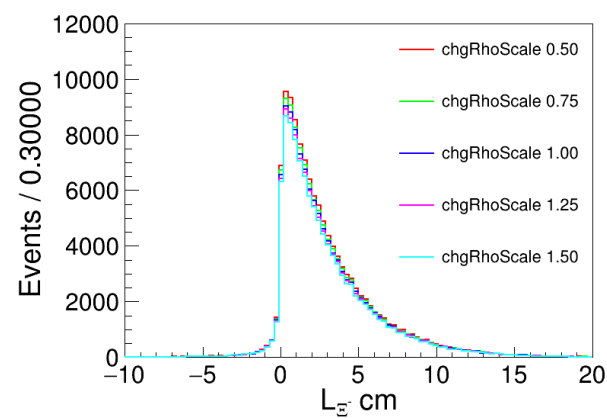
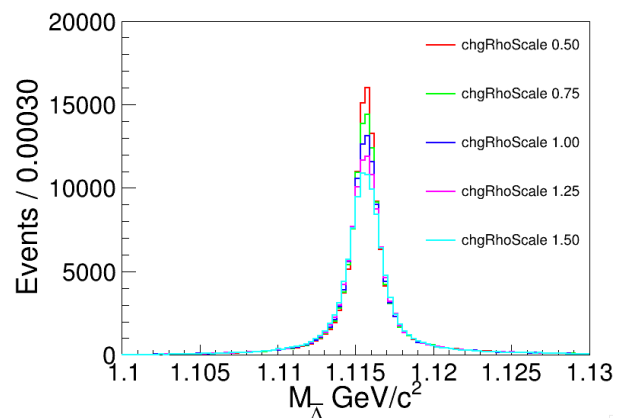
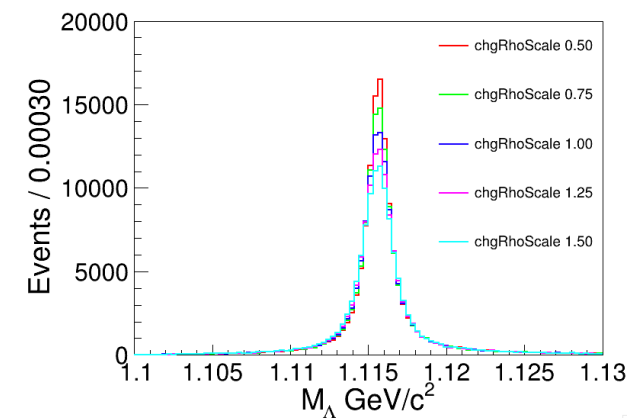
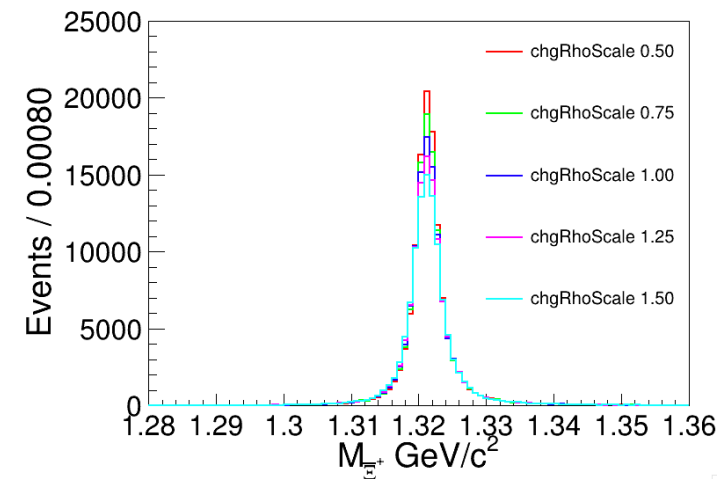
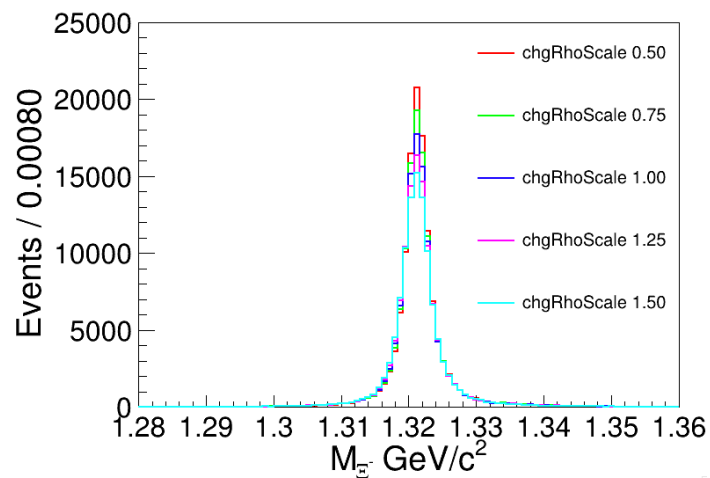
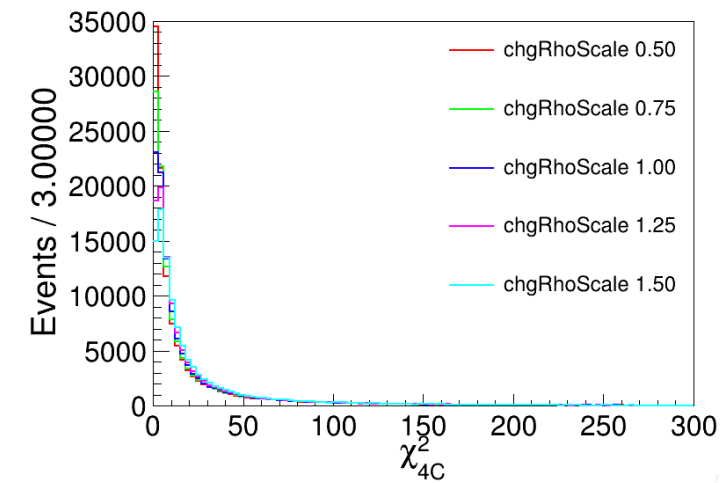




➤ 快模拟chgRhoScale

	0.50 Eff. (%)	0.75 Eff. (%)	No Scale Eff. (%)	1.25 Eff. (%)	1.50 Eff. (%)
Charged tracks	24.77	24.77	24.77	24.77	24.77
Λ 、 Ξ^- Rec.	23.32	23.17	23.05	22.96	22.86
$\bar{\Lambda}$ 、 $\bar{\Xi}^+$ Rec.	21.85	21.60	21.37	21.20	21.01
4C fit	19.40	19.09	18.82	18.61	18.39
χ^2_{4C} cut	17.42	17.06	16.76	16.52	16.27
$L_{\Xi^-/\bar{\Xi}^+}$ cuts	15.70	15.39	15.11	14.90	14.68
$M_{\Xi^-/\bar{\Xi}^+}$ cuts	14.28	13.96	13.69	13.47	13.26
$M_{\Lambda/\bar{\Lambda}}$ cuts	11.80	11.49	11.22	10.99	10.75





➤ 快模拟chgTheScale 和chgPhiScale

	0.50 Eff. (%)	0.75 Eff. (%)	No Scale Eff. (%)	1.25 Eff. (%)	1.50 Eff. (%)
Charged tracks	25.06	24.95	24.77	24.54	24.34
Λ 、 E^- Rec.	23.46	23.31	23.05	22.82	22.60
$\bar{\Lambda}$ 、 E^+ Rec.	21.90	21.71	21.37	21.15	20.91
4C fit	20.03	19.41	18.82	18.35	17.95
χ^2_{4C} cut	18.14	17.44	16.76	16.21	15.69
$L_{E^-/\bar{E}^+}$ cuts	16.39	15.74	15.11	14.61	14.13
$M_{E^-/\bar{E}^+}$ cuts	15.05	14.34	13.69	13.16	12.68
$M_{\Lambda/\bar{\Lambda}}$ cuts	12.61	11.86	11.22	10.70	10.23

