





## topology of different ncharge in mctruth

Luarlw														
ncharge=0					ncharge=2					ncharge=4				
channel	events	ratio(%)	total ratio(%)	eff(%)	channel	events	ratio(%)	total ratio(%)	eff(%)	channel	events	ratio(%)	total ratio(%)	eff(%)
$3\pi^0$	1364	24.86	0.27	3.35	$\pi^+\pi^-$	26310	21.76	5.26	0.28	$3\pi^0 2\pi^+ 2\pi^-$	13448	7.17	2.69	99.86
$2\pi^0 K_L^0$	490	8.93	0.10	0.54	$2\pi^0 \pi^+ \pi^-$	11348	9.38	2.27	75.43	$2\pi^0 2\pi^+ 2\pi^-$	13278	7.17	2.69	98.52
$\pi^0 2\gamma$	293	5.34	0.06	0.66	$3\pi^0 \pi^+ \pi^-$	5717	4.73	1.14	91.82	$2\pi^+ 2\pi^-$	9199	4.91	1.84	84.79
$\pi^0 \gamma$	223	4.06	0.04	0	$\pi^0 \pi^+ \pi^-$	5121	4.24	1.02	27.69	$\pi^0 \pi^+ \pi^- K^+ K^-$	5545	2.96	1.11	88.52
$4\pi^0$	210	3.83	0.04	3.11	$K^+ K^-$	2790	2.31	0.56	0.27	$\pi^+ \pi^- K^+ K^-$	5460	2.91	1.09	82.44
$n\bar{n}$	187	3.41	0.04	0	$\mu^+ \mu^-$	1838	1.52	0.37	0.11	$\pi^0 \pi^+ \pi^- K^+ K^-$	3798	2.03	0.76	99.22

Hybrid														
ncharge=0					ncharge=2					ncharge=4				
channel	events	ratio(%)	total ratio(%)	eff(%)	channel	events	ratio(%)	total ratio(%)	eff(%)	channel	events	ratio(%)	total ratio(%)	eff(%)
$2\pi^0 K_L^0$	437	9.45	0.09	0	$\pi^+\pi^-$	27615	23.20	5.52	1.45	$2\pi^0 2\pi^+ 2\pi^-$	19777	9.98	3.96	97.60
$n\bar{n}$	171	3.70	0.03	0	$2\pi^0 \pi^+ \pi^-$	11681	9.81	2.34	65.86	$2\pi^+ 2\pi^-$	8288	4.18	1.66	88.02
$2\pi^0 2\gamma$	157	3.40	0.03	4.46	$\pi^0 \pi^+ \pi^-$	5374	4.52	1.07	26.20	$\pi^0 \pi^+ \pi^- K^+ K^-$	6867	3.47	1.37	97.80
$3\pi^0 2\gamma$	145	3.14	0.03	5.52	$3\pi^0 \pi^+ \pi^-$	5412	4.55	1.08	95.10	$\pi^0 2\pi^+ 2\pi^-$	4557	2.30	0.91	99.01
$3\pi^0 K_L^0$	136	2.94	0.03	14.7	$K^+ K^-$	2851	2.40	0.57	1.79	$\pi^+ \pi^- K^+ K^-$	4437	2.24	0.89	84.08
$5\pi^0$	101	2.18	0.02	3.96	$e^+ e^-$	1421	1.19	0.28	0	$3\pi^0 2\pi^+ 2\pi^-$	3594	1.81	0.72	98.04



