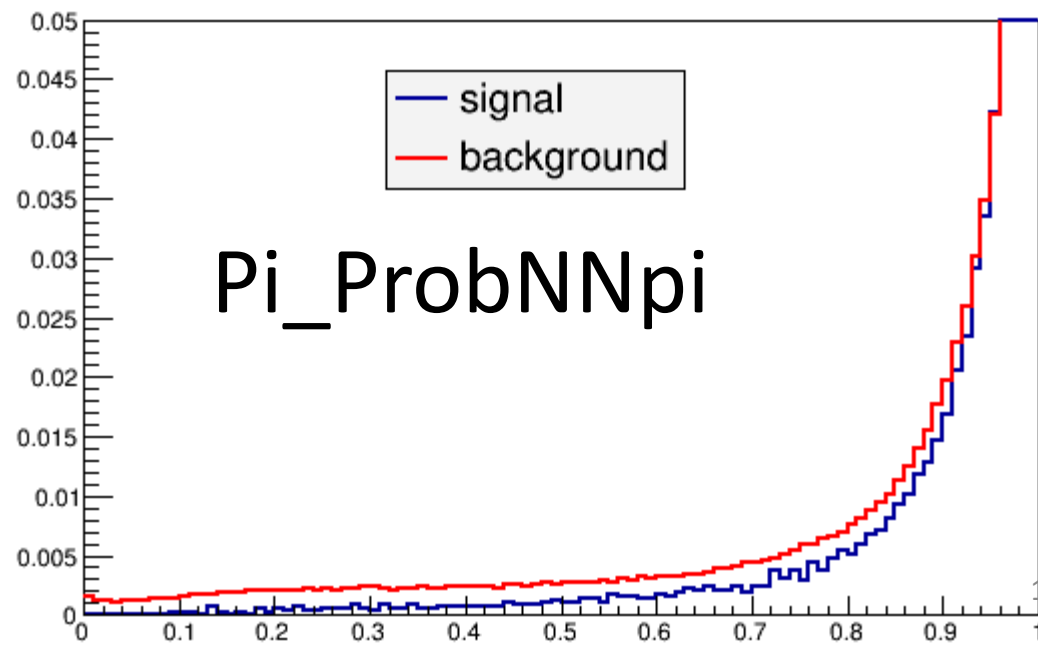
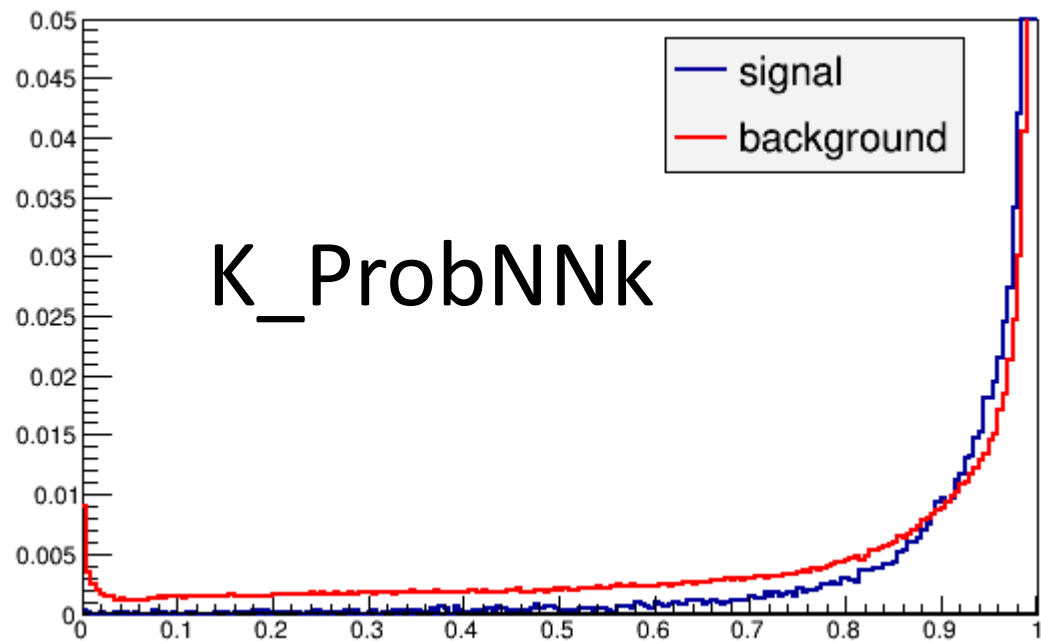
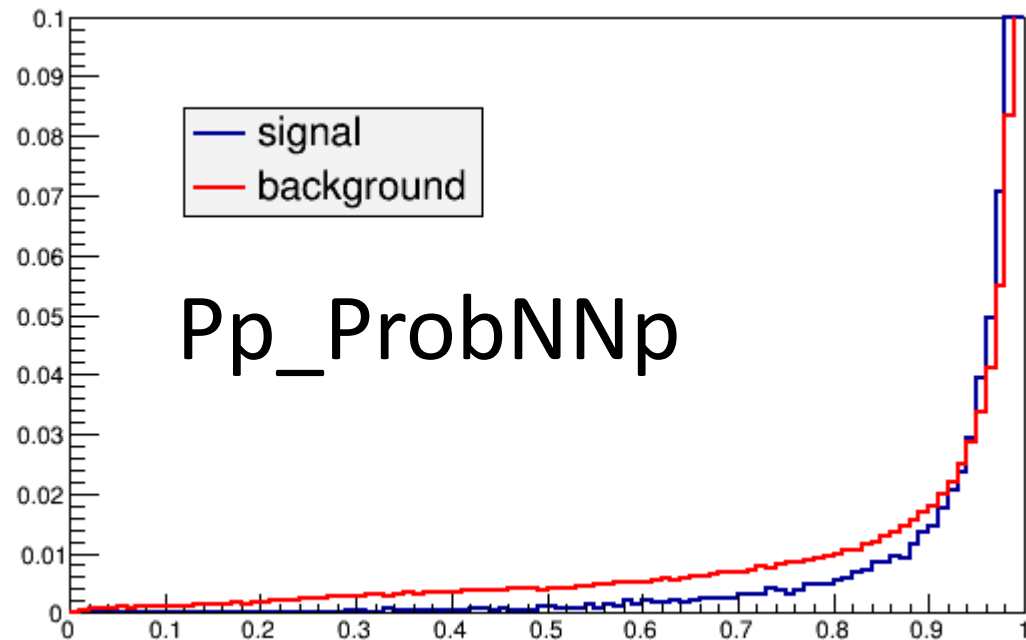
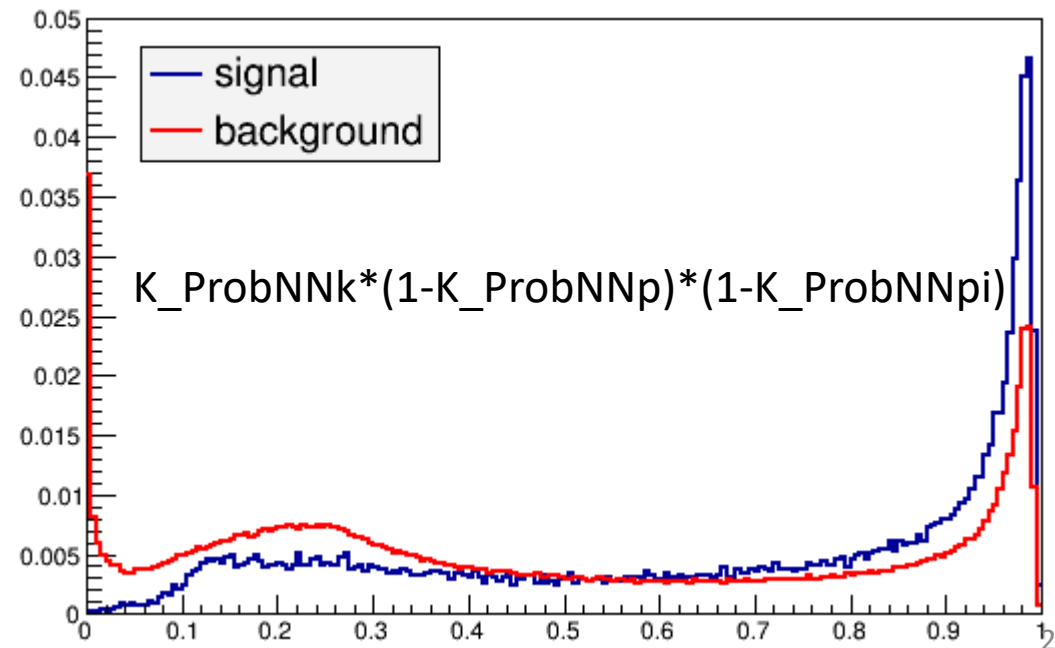
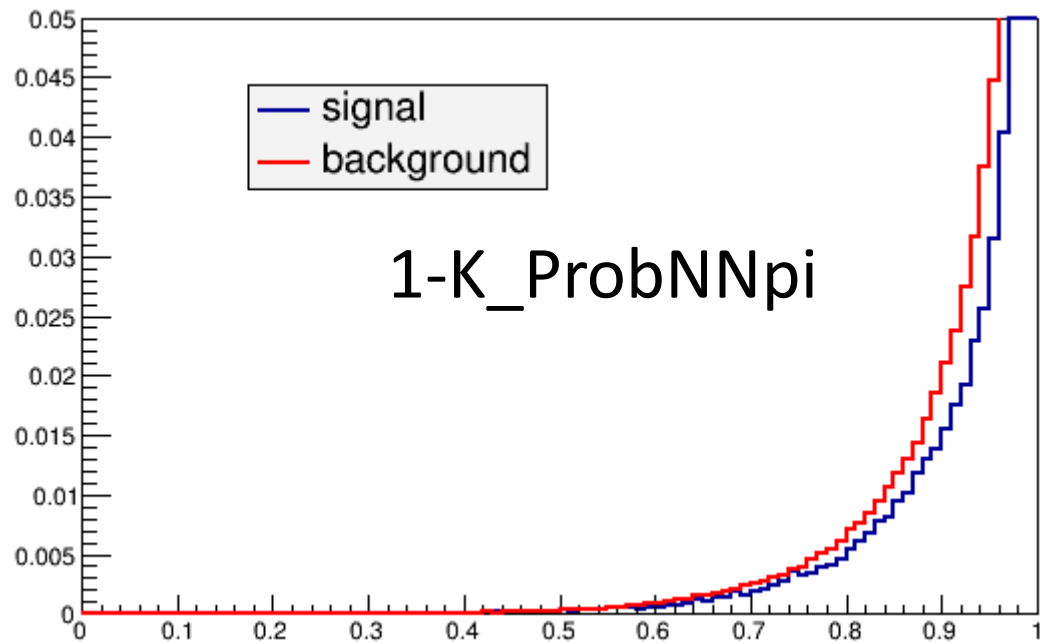
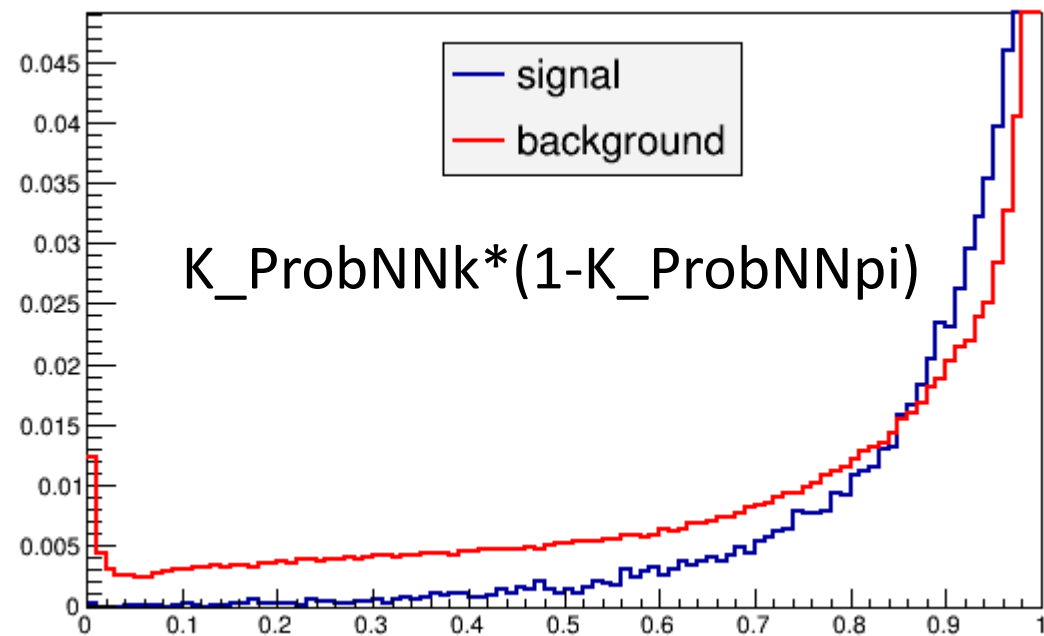
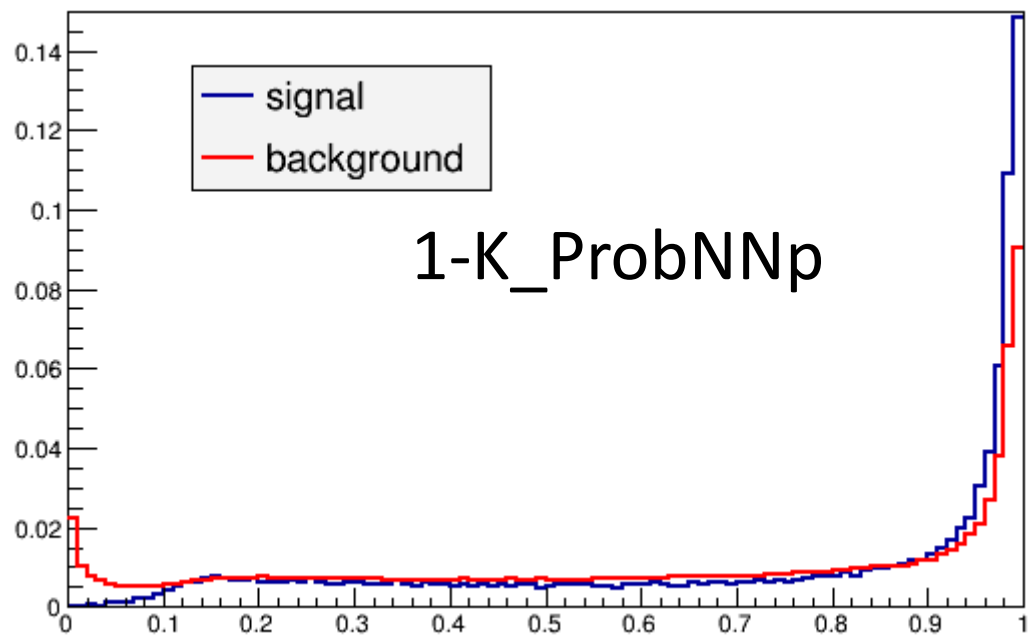
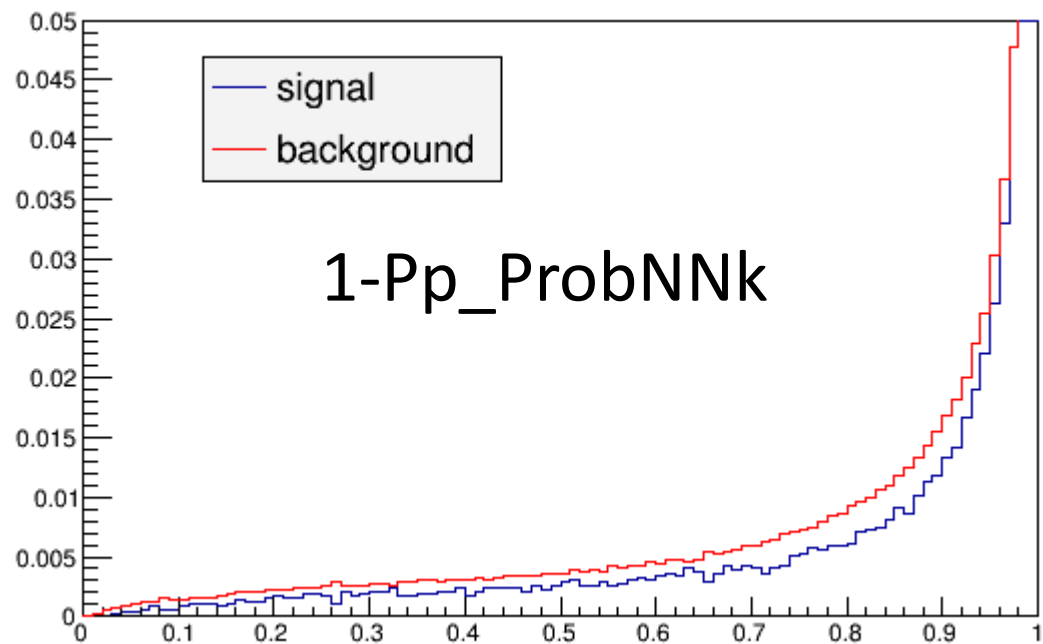
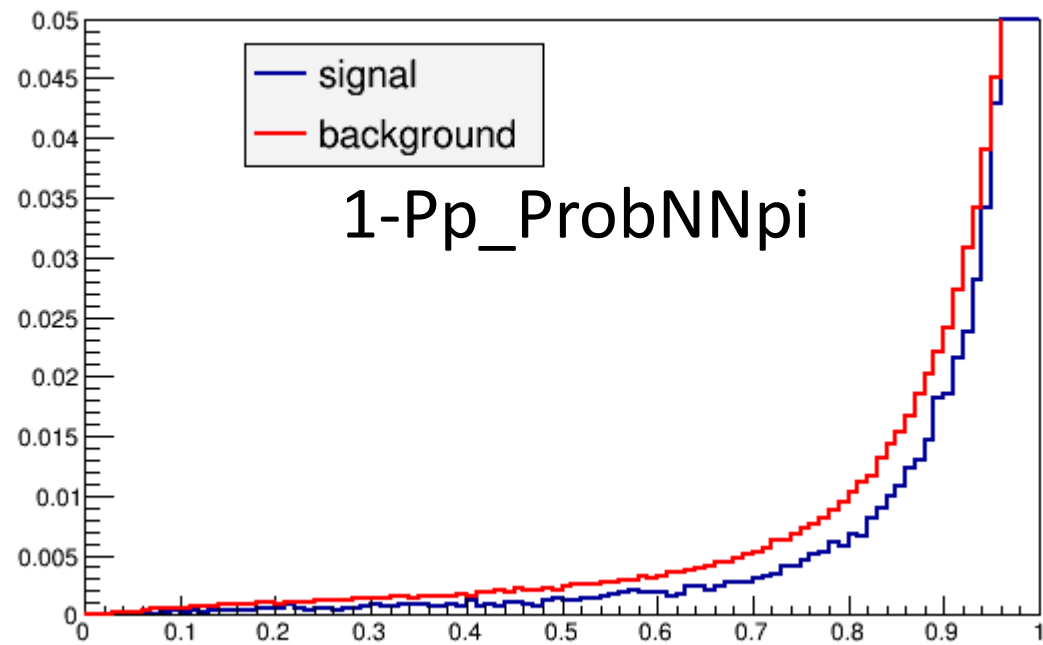


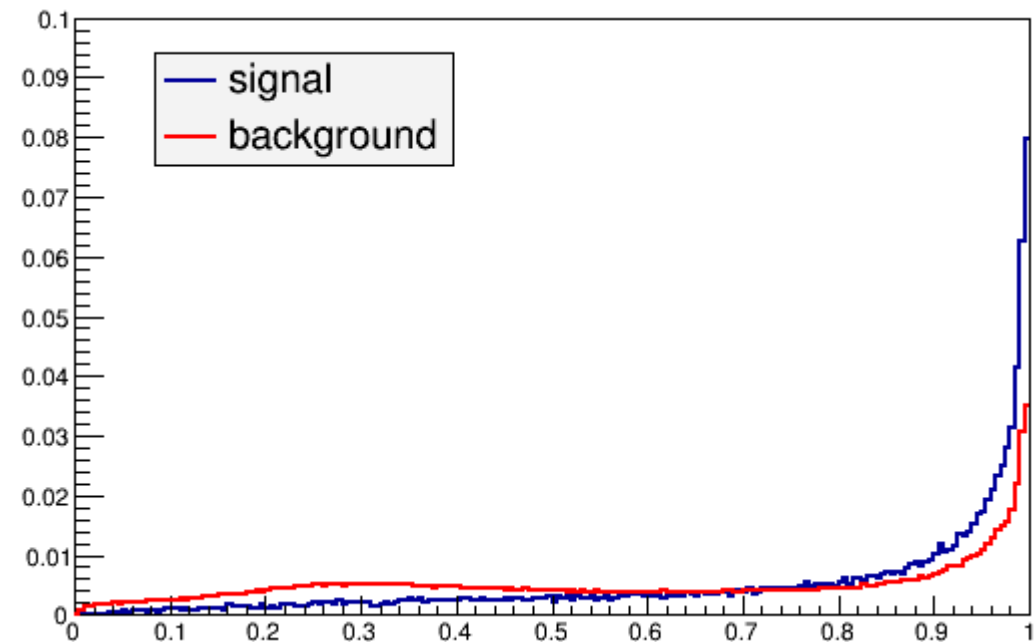
# Sweight对比一些ProbNN变量分布



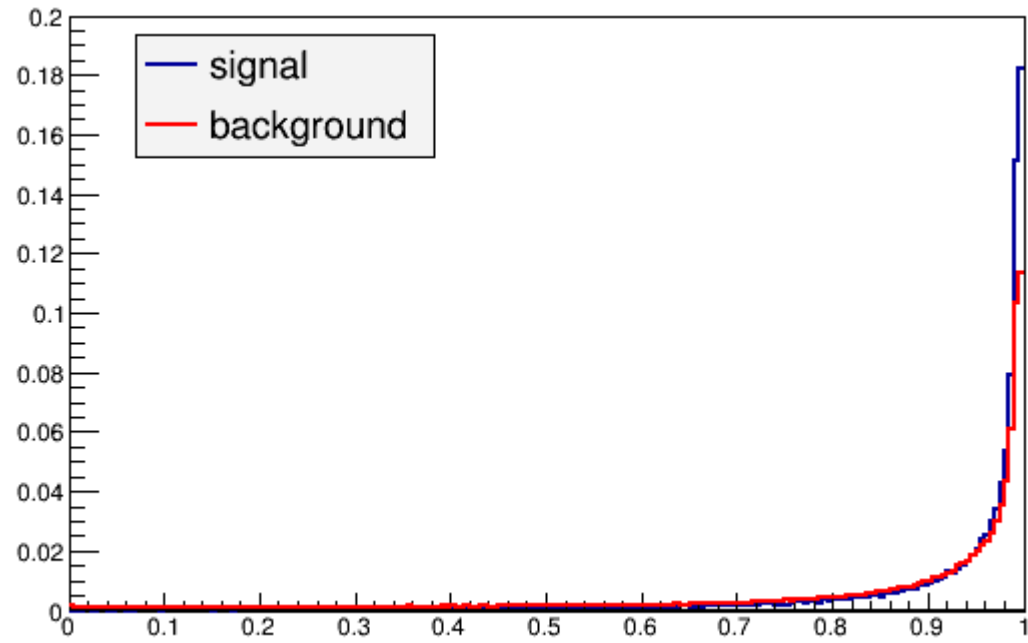




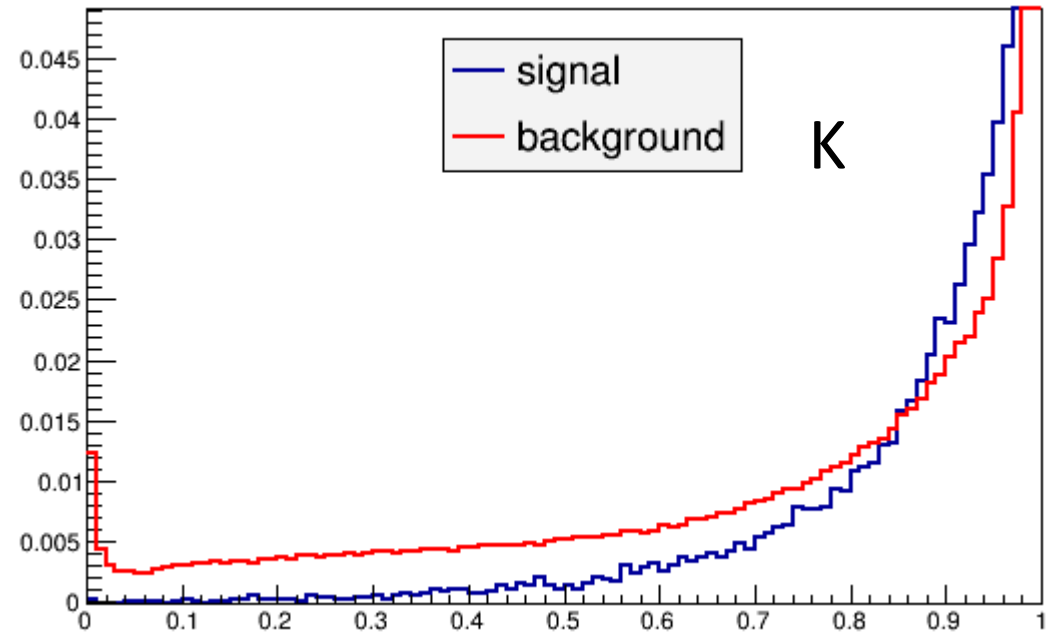
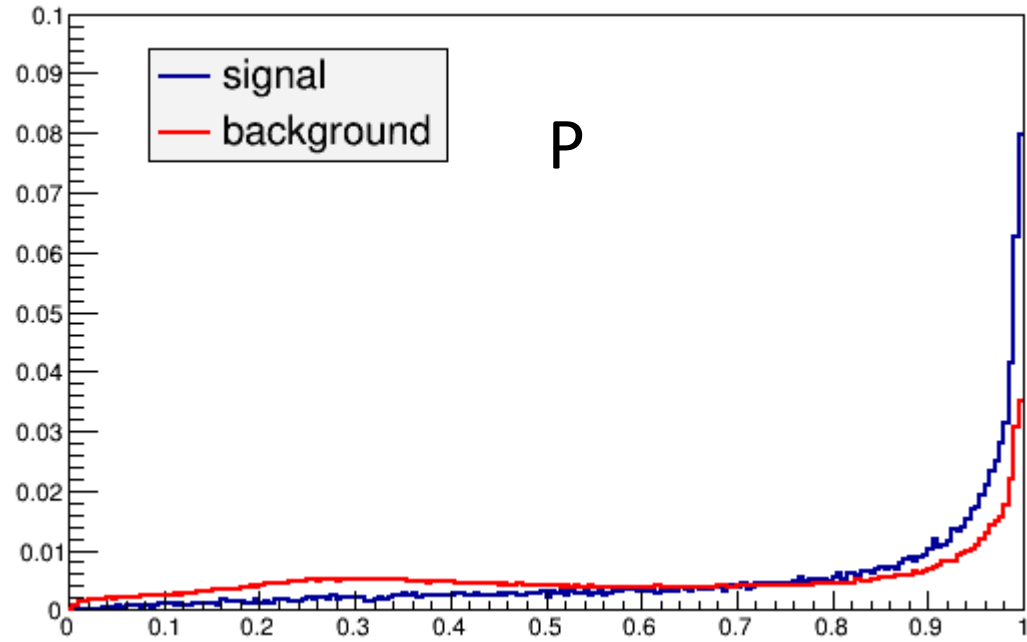
$P_{\text{ProbNN}p} \cdot (1 - P_{\text{ProbNN}k}) \cdot (1 - P_{\text{ProbNN}\pi})$



$$\text{Pi\_ProbNNpi} * (1 - \text{Pi\_ProbNNp}) * (1 - \text{Pi\_ProbNNk})$$



$$P\_ProbNNp*(1-P\_ProbNNk)*(1-P\_ProbNNpi)$$
$$K\_ProbNNk*(1-K\_ProbNNpi)$$



Original data

S	S+B	S/sqrt(S+B)
25273	420689	38.7

MVA(BDT\*)>cut

	Cut	S	S+B	S/sqrt(S+B)
BDT	0.110	17704	105659	54.4675
BDTB	-0.705	21373	208527	46.8049
BDTD	0.194	14382	74453	52.7089
BDTMitFisher	0.29	17755	117385	51.8217

PIDcut

$P\_ProbNNp*(1-P\_ProbNNk)*(1-P\_ProbNNpi)>0.23$

$K1\_ProbNNk*(1-K1\_ProbNNpi)>0.5$

$K2\_ProbNNk*(1-K2\_ProbNNpi)>0.5$

	<b>S</b>	<b>S+B</b>	<b>S/sqrt(S+B)</b>
BDT	16331	71458	61.09
BDTB	17415	102074	54.51
BDTD	13331	50574	59.28
BDTMitFisher	16918	79120	60.15

MC Xic 在MVA cut 和PID cut下的event number

	No cut	MVAcut	MVAcut&&PIDcut
BDT	1253	865	822
BDTB	1253	882	841
BDTD	1253	702	670
BDTMitFisher	1253	863	824



# Time分bin看 $S/\sqrt{S+B}$    BDT

Original data	Timebin/ns	S	S+B	$S/\sqrt{S+B}$
	0~0.00063	6500	51130	28.74
	0.00063~0.00095	8819	61603	35.53
	0.00095~0.1	9873	307716	17.80
After BDT cut	Timebin/ns	S	S+B	$S/\sqrt{S+B}$
	0~0.00063	5688	22103	38.16
	0.00063~0.00095	5845	23784	37.90
	0.00095~0.1	6256	59757	25.59
After BDT cut &&PID cut	Timebin/ns	S	S+B	$S/\sqrt{S+B}$
	0~0.00063	5392	15852	42.83
	0.00063~0.00095	5523	16598	42.87
	0.00095~0.1	5465	38998	27.68

# Time分bin看 $S/\sqrt{S+B}$    BDTB

Original data	Timebin/ns	S	S+B	$S/\sqrt{S+B}$
	0~0.00063	6500	51130	28.74
	0.00063~0.00095	8819	61603	35.53
	0.00095~0.1	9873	307716	17.80

After BDTB cut	Timebin/ns	S	S+B	$S/\sqrt{S+B}$
	0~0.00063	5677	21708	38.53
	0.00063~0.00095	6129	29106	35.93
	0.00095~0.1	6751	116881	19.747

After BDTB cut &&PID cut	Timebin/ns	S	S+B	$S/\sqrt{S+B}$
	0~0.00063	5330	15177	43.27
	0.00063~0.00095	5773	19149	41.72
	0.00095~0.1	6360	67700	24.45

# Time分bin看 $S/\sqrt{S+B}$ BDTD

Original data	Timebin/ns	S	S+B	$S/\sqrt{S+B}$
	0~0.00063	6500	51130	28.74
	0.00063~0.00095	8819	61603	35.53
	0.00095~0.1	9873	307716	17.80
After BDTD cut	Timebin/ns	S	S+B	$S/\sqrt{S+B}$
	0~0.00063	4891	17093	37.414
	0.00063~0.00095	4552.4	17881	34.04
	0.00095~0.1	4674.4	38573	23.80
After BDTD cut &&PID cut	Timebin/ns	S	S+B	$S/\sqrt{S+B}$
	0~0.00063	4752	12377	42.72
	0.00063~0.00095	4332	12690	38.46
	0.00095~0.1	4293	25497	26.88

# Time分bin看 $S/\sqrt{S+B}$    BDTMitFisher

Original data	Timebin/ns	S	S+B	$S/\sqrt{S+B}$
	0~0.00063	6500	51130	28.74
	0.00063~0.00095	8819	61603	35.53
	0.00095~0.1	9873	307716	17.80

After BDTMitFisher cut	Timebin/ns	S	S+B	$S/\sqrt{S+B}$
	0~0.00063	5790	24095	37.30
	0.00063~0.00095	6208	26835	37.90
	0.00095~0.1	6234	68381	23.84

After BDTMitFisher cut & PID cut	Timebin/ns	S	S+B	$S/\sqrt{S+B}$
	0~0.00063	5415	17149	41.35
	0.00063~0.00095	5823	18347	42.99
	0.00095~0.1	5704	43609	27.32

