

Compactness & PINCness Combo Variable Update

- This is an analysis of peak Q value achieved by making 2 dimensional cut on a 1000x1000 bin histograms.
- This is the higher resolution analog to the 100x100 bin analysis done previously

1000 Bin Resolution

Optimized Compactness			
fHit Bin	Q Value	eff(s)	eff(b)
0	1.39	0.95	4.72E-01
1	1.74	0.9	2.65E-01
2	2.29	0.79	1.18E-01
3	2.85	0.72	6.45E-02
4	3.82	0.67	3.11E-02
5	5.56	0.5	8.13E-03
6	7.73	0.31	1.56E-03
7	9.96	0.17	2.88E-04
8	14.75	0.41	7.91E-04
9	12.41	0.19	2.46E-04

Optimized PINCness			
fHit Bin	Q Value	eff(s)	eff(b)
0	1.14	0.85	5.55E-01
1	1.21	0.78	4.22E-01
2	1.4	0.75	2.86E-01
3	1.76	0.71	1.60E-01
4	2.55	0.66	6.66E-02
5	4.34	0.64	2.11E-02
6	7.25	0.54	5.48E-03
7	13	0.65	1.67E-05
8	16	0.55	6.24E-05
9	7.57	0.01	8.76E-03

Optimized Compactness & PINCness (1000x1000)			
fHit Bin	Q Value	eff(s)	eff(b)
0	1.53703	0.80	2.70E-01
1	1.90727	0.69	1.32E-01
2	2.51614	0.64	6.44E-02
3	3.48631	0.48	1.89E-02
4	5.43424	0.38	4.91E-03
5	20.5535	0.01	3.37E-07
6	16.074	0.06	1.62E-05
7	41.904	0.09	4.78E-06
8	61.3234	0.21	1.16E-05
9	111.369	0.23	4.13E-06

1000 Bin Resolution

Peak Q Values

