Run Number Input Energy E ₁ Con 5060 125.0 0.0. 5020 (20 sigma) 125 0.0. 5090 125 0.5 5070 124.0 0.0. 5071 123 0.0. 5072 122.0 0.0. 5073 122.0 0.0. 5074 122.0 0.0. 5075 122.0 0.0. 5077 122.0 0.0. 5077 122.0 0.0. 5078			Offi	Outlica I ig offitulation Nesults				
125.0 125 125 124.0 123	E ₁ Corr,E ₂ Corr	$\frac{E_1}{E_b}$	$\frac{E_2}{E_b}$	ad_2	Time	$\frac{q_{s/\gamma}}{s/\gamma}$	$rac{E_1}{E_b} - rac{E_2}{E_b}$	# Events
125 125 124.0 123	0.0,0.0	9.8877e-01±2.47e-05	9.8873e-01±3.81e-05	$1.5720e-01\pm1.40e-01$	1.9952c+04±5.03c+00 9.8855c-01±2.26c-05 3.4991c-05±4.68c-05	9.8855e-01±2.26e-05		1.8341e+05±1.77e+02
125 124.0 123	0.0,0.0	9.8899e-01±3.41e-05	9.8903e-01±3.99e-05	2.4136e-01±2.21e-01	1.9859e+04±7.92e+00 9.8882e-01±2.36e-05	9.8882e-01±2.36e-05	-3.8897e-05±5.87e-05 1.7672e+05±2.09e+02	1.7672e+05±2.09e+02
124.0	6.0,6.0	9.8849e-01±3.69e-05	9.8856e-01±2.35e-05	1.0405e-01±1.86e-01	1.9978e+04±5.92e+00 9.8831e-01±2.35e-05	9.8831e-01±2.35e-05	-6.8103e-05±4.22e-05 1.8342e+05±2.24e+02	1.8342e+05±2.24e+02
123	0.0,0.0	9.8808e-01±8.53e-04	9.8892e-01±2.92e-05	$-6.0455e - 02 \pm 1.76e - 01$	$8-01\pm 8.53e-04 \hspace{0.2cm} \mid 9.8892e-01\pm 2.92e-05 \hspace{0.2cm} \mid -6.0455e-02\pm 1.76e-01 \hspace{0.2cm} \mid 1.9958e+04\pm 4.06e+00 \hspace{0.2cm} \mid 9.8830e-01\pm 4.20e-04 \hspace{0.2cm} \mid -8.3477e-04\pm 8.68e-04 \hspace{0.2cm} \mid 1.8179e+05\pm 1.70e+02\pm 1.70e+02\pm 1.8179e+03\pm $	9.8830e-01±4.20e-04	-8.3477e-04±8.68e-04	1.8179e+05±1.70e+02
0 001	0.0,0.0	9.8908e-01±2.76e-05	9.8906e-01±3.54e-05	$-2.3924e-01\pm2.26e-01$	$8-01\pm 2.76-05 \\ 9.8906-01\pm 3.54-05 \\ 2.3924e-01\pm 2.26e-01 \\ 1.9943e+004\pm 1.94e+00 \\ 9.8888e-01\pm 2.19e-05 \\ 9.8888e-01\pm 2.19e-05 \\ 2.2883e-05\pm 4.66e-05 \\ 1.8044e+05\pm 1.77e+02 \\ $	9.8888e-01±2.19e-05	2.2883e-05±4.66e-05	1.8044e+05±1.77e+02
0.771	0.0,0.0	9.8921e-01±4.15e-05	9.8920e-01±3.03e-05	7.6478e-02±2.05e-01	$1e-01\pm 4.15e-05 \hspace{0.2cm} \hspace{0.2cm} 9.8920e-01\pm 3.03e-05 \hspace{0.2cm} \hspace{0.2cm} 7.6478e-02\pm 2.05e-01 \hspace{0.2cm} \hspace{0.2cm} 1.9950e+04\pm 7.44e+00 \hspace{0.2cm} \hspace{0.2cm} 9.8902e-01\pm 2.38e-05 \hspace{0.2cm} \hspace{0.2cm} 6.1890e-06\pm 5.53e-05 \hspace{0.2cm} \hspace{0.2cm} 1.7866e+05\pm 1.74e+02 \hspace{0.2cm} \hspace{0.2cm} 1.7866e+05\pm 1.74e+02 \hspace{0.2cm} \hspace{0.2cm} 1.7866e+02\pm 1.74e+03 \hspace{0.2cm} \hspace{0.2cm} 1.7866e+03 0.2c$	9.8902e-01±2.38e-05	6.1890e-06±5.53e-05	1.7866e+05±1.74e+02
5130 125 0.3	0.3,0.3	9.8863e-01±4.04e-05	9.8865e-01±3.80e-05	2.5135e-01±1.83e-01	$3e-01\pm4.04e-05 \hspace{0.2cm} \hspace{0.2cm} 9.8865e-01\pm3.80e-05 \hspace{0.2cm} \hspace{0.2cm} 2.8865e-01\pm3.80e-05 \hspace{0.2cm} \hspace{0.2cm} 2.8865e-01\pm3.80e-05 \hspace{0.2cm} \hspace{0.2cm} 9.8843e-01\pm3.17e-05 \hspace{0.2cm} \hspace{0.2cm} 1.9684e-05\pm4.85e-05 \hspace{0.2cm} \hspace{0.2cm} 1.8086e+05\pm1.54e+02 \hspace{0.2cm} \hspace{0.2cm} 2.8866e+02\pm1.8486e+02\pm1.84e+02\pm1$	9.8843e-01±3.17e-05	-1.9684e-05±4.85e-05	1.8086e+05±1.54e+02
5131 125 0.3	0.3,-0.3	9.8863e-01±4.23e-05	9.8869e-01±3.63e-05	1.4937e+00±2.96e-01	$3-01\pm4.23-05 \\ 9.8869e-01\pm3.63-05 \\ 1.8987e+00\pm2.96-01 \\ 1.9887e+00\pm2.75e+01 \\ 9.8845e-01\pm2.54e+05 \\ -5.7930e-05\pm6.14e-05 \\ 1.8061e+05\pm5.25e+02 \\ 1.8061$	9.8845e-01±2.54e-05	-5.7930e-05±6.14e-05	1.8061e+05±5.25e+02
5132 125 -0.3	-0.3,0.3	9.8860e-01±4.55e-05	9.8860e-01±4.24e-05	-1.6877e+00±2.49e-01	$0e-01\pm4.55e-05 \\ 9.8860e-01\pm4.24e-05 \\ -1.6877e+00\pm2.49e-01 \\ 1.9871e+00\pm2.85e+01 \\ 1.9841e+00\pm2.85e+01 \\ 9.8839e-01\pm3.74e-05 \\ -4.859e-06\pm4.92e-05 \\ 1.8048e+05\pm4.82e+02 \\ -4.859e-06\pm4.92e-05 \\ 1.8048e+05\pm4.82e+02 \\ -4.859e-06\pm4.92e-05 \\ 1.8048e+05\pm4.82e+02 \\ -4.859e-06\pm4.92e-05 \\ -4.859e-06\pm4.92e-06\pm4.92e-05 \\ -4.859e-06\pm4.92e-06\pm4.92e-06\pm4.92e-06 \\ -4.859e-06\pm4.92e-06\pm4.92e-06\pm4.92e-06\pm4.92e-06\pm4.92e-06\pm4.92e-06\pm4.92e-06\pm4.92e-06\pm4.92e-06\pm4.92e-06\pm4.92e-06\pm4.92e-06\pm4.92e-06\pm4.92e-06\pm4.92e-06\pm4.92e-06\pm4.92e-06\pm4.92e-06\pm$	9.8839e-01±3.74e-05	-4.8596e-06±4.92e-05	1.8048e+05±4.82e+02
5133 125 -0.3	-0.3,-0.3	9.8851e-01±3.85e-05	9.8855e-01±3.65e-05	-6.4446e-02±1.81e-01	1e-01±3.85e-05 9.8855e-01±5.65e-05 -6.4446e-02±1.81e-01 2.0054e+04±6.9e+00 9.8832e-01±3.08e-05 4.2148e-05±4.57e-05 1.8499e+05±1.19e+02	9.8832e-01±3.08e-05	-4.2148e-05±4.57e-05	1.8499e+05±1.19e+02

	$\frac{E_1}{E_b}$ p-values	$\frac{E_2}{E_b}$ p-values	zpv p-values	Time p-values	$\frac{\sqrt{s}}{\sqrt{s_h}}$ p-values	$\frac{E_1-E_2}{E_b}$ p-values	# of Events p-values
	2.4293e-01,2.4731e-01	1,2.4731e-01 1.6614e-01,1.6481e-01	4.6995e-01,4.7374e-01	9.0746e-01,9.0588e-01	6.9921e-01,6.9882e-01	1.1934e-01,1.2308e-01	8.2985e-01,8.3074e-01
_	3.2475e-05,2.3795e-05	7.5776e-05,1.4369e-05	7.2779e-01,7.3166e-01	1.0825e-05,1.4331e-08	1.0825e-05,4.8199e-08	2.9533e-01,3.0113e-01 1.0825e-05,1.4264e-15	1.0825e-05,1.4264e-15
_	2.1650e-05,4.2645e-06	$5.4.2645c-06 \hspace{0.2cm} 5.1960c-04.6.3506c-04 \hspace{0.2cm} 6.3950c-04.6.3506c-04 \hspace{0.2cm} 8.0585c-01.8.0757c-01 \hspace{0.2cm} 2.9444c-03.2.0910c-03 \hspace{0.2cm} 1.0825c-05.3.0905c-07 \hspace{0.2cm} 9.3929c-02.9.3436c-02 \hspace{0.2cm} 9.6356c-01.9.6336c-01$	8.0585c-01,8.0757c-01	2.9444c-03,2.0910c-03	1.0825e-05,3.0905e-07	9.3929c-02,9.3436c-02	9.6356e-01,9.6336e-01
_	9.9703e-01,4.0726e-01	1,4.0726e-01 7.3611e-04,6.2218e-04 3.0950e-01,3.0849e-01	3.0950e-01,3.0849e-01	3.6487e-01,3.6226e-01	3.6487e-01,3.6226e-01 9.9994e-01,5.3972e-01 9.1905e-02,3.0615e-01 1.0825e-05,1.1697e-06	9.1905e-02,3.0615e-01	1.0825e-05,1.1697e-06
-	1.0825e-05,3.2090e-08	3.2475e-05,2.1184e-06 1.2378e-01,1.2737e-01	1.2378e-01,1.2737e-01	1.7168e-01,1.7181e-01	1.7168e-01,1.7181e-01 1.0825e-05,1.1902e-09 8.4383e-01,8.4474e-01 1.0825e-05,1.7465e-10	8.4383e-01,8.4474e-01	1.0825e-05,1.7465e-10
\vdash	1.0825e-05,7.0633e-08	1.0825e-05,7.3736e-09 7.3121e-01,7.2876e-01	7.3121e-01,7.2876e-01	7.2911e-01,7.2919e-01	7.2911e-01,7.2919e-01 1.0825e-05,8.2530e-12 6.7291e-01,6.7178e-01 1.0825e-05,5.3935e-14	6.7291e-01,6.7178e-01	1.0825e-05,5.3935e-14
Н	4.4491e-03,5.2824e-03	9.5055e-02,9.4403e-02	6.7110e-01,6.6339e-01	1.0825e-05,8.3024e-15	4.1244e-03,4.3256e-03	3.9075e-01,3.9082e-01	1.0825e-05,8.7061e-10
\vdash	6.0837e-03,8.6224e-03	6.0837e-03,8.6224e-03 3.7058e-01,3.7536e-01	3.7888e-04,7.1263e-04	1.8403e-04,8.6052e-04	$3.7888e - 04.7.1263e - 04 \\ \hline 1.8403e - 04.8.6052e - 04 \\ \hline 1.8403e - 04.7.1263e - 04.7.1263e \\ \hline 1.8403e - 04.7.1263e \\ \hline 1.8403e - 04.1.8840e - 04 \\ \hline 1.840e - 04 \\ \hline 1.8$	2.0977e-01,2.0960e-01	1.5155e-04,1.8840e-04
\vdash	8.3353e-04,2.8264e-03	$\frac{4.28264e-03}{4.28264e-03} \frac{2.2549e-02.2.1135e-02}{2.249e-02.2.1135e-03} \frac{6.951e-05,5.7397e-06}{6.951e-05,7397e-06} \frac{6.9281e-04,1.3279e-03}{6.951e-05,1.3279e-03} \frac{6.9281e-04,1.3279e-03}{6.951e-05,1.3279e-03} \frac{6.9281e-04,1.3279e-03}{6.9281e-05,1.3279e-03} \frac{6.9281e-04,1.3279e-03}{6.9281e-05,1.3279e-03} \frac{6.9281e-04,1.3279e-03}{6.9281e-05,1.3279e-03} \frac{6.9281e-04,1.3279e-03}{6.9281e-05,1.3279e-03} \frac{6.9281e-04,1.3279e-03}{6.9281e-05,1.3279e-03} \frac{6.9281e-04,1.3279e-03}{6.9281e-05,1.3283e-01} \frac{6.9281e-04,1.3279e-03}{6.9281e-05,1.3283e-01} \frac{6.9281e-04,1.3279e-03}{6.9281e-05,1.3283e-01} \frac{6.9281e-04,1.3279e-03}{6.9281e-05,1.3283e-01} \frac{6.9281e-04,1.3279e-03}{6.9281e-05,1.3283e-01} \frac{6.9281e-04,1.3279e-03}{6.9281e-05,1.3283e-01} \frac{6.9281e-04,1.3279e-03}{6.9281e-05,1.3283e-01} \frac{6.9281e-04,1.3279e-03}{6.9281e-04,1.3279e-03} 6.9281e-04,1.3279e-$	6.4951e-05,5.7397e-06	1.3315e-03,2.0713e-03	6.9281e-04,1.3279e-03	5.3085e-01,5.3283e-01	1.1908e-04,5.9281e-05
\vdash	5.4125e-05,1.8334e-05	5.4125e-05.1.8334e-05 2.1650e-03.1.6076e-03 3.0461e-01.3.0802e-01 1.0825e-05.1.8951e-10 2.1650e-05.6.9939e-06 2.1522e-01.2.1768e-01 1.0825e-05.8.8942e-07	3.0461e-01,3.0802e-01	1.0825e-05,1.8951e-10	2.1650e-05,6.9939e-06	2.1522e-01,2.1768e-01	1.0825e-05.5.8942e-07

_	_	_					_		_		
	$E_1 - E_2 z_{p\nu}$ Corr.	-1.6361e-01±5.71e-04	$-1.6673e-01\pm4.17e-04$	-2.1219e-01±6.74e-04	$-1.6062e - 01 \pm 3.50e - 04$	$-1.6233e-01\pm7.89e-04$	-1.6191e-01±2.58e-04	$-1.7842e-01\pm6.76e-04$	-1.6459e-01±1.51e-03	$-1.5838e - 01 \pm 1.84e - 03$	$-1.3779e-01\pm7.04e-04$
	$E_2 \sqrt{s} \mathrm{Corr.}$	7.3252e-01±9.89e-04 7.3587e-01±8.22e-04	7.3283e-01±1.49e-03	7.2453e-01 \pm 8.35e-04	7.3292e-01 \pm 5.18e-04	7.3331e-01±6.74e-04	7.3312e-01±1.47e-03	7.3280e-01±1.22e-03	7.3579e-01±1.17e-03	7.3413e-01±1.00e-03	7.3779e-01±8.25e-04
ons Table	$E_1 \sqrt{s} \mathrm{Corr.}$	$7.3252e - 01 \pm 9.89e - 04$	$7.3451e-01\pm1.59e-03$	7.2554e-01 \pm 8.62e-04	$7.3480c - 01 \pm 4.13c - 04$	7.3305e-01±9.58e-04	$7.3313e-01\pm1.15e-03$	7.3254e-01 \pm 1.17e-03	$7.3436e - 01 \pm 1.18e - 03$	$7.3907e-01\pm1.08e-03$	7.3962e-01±6.78e-04
Guinea Pig Correlations Table	$E_2 z_{pv}$ Corr.	1.0944c-01±5.94c-04	$1.1324e-01\pm6.50e-04$	$1.4210e-01\pm5.30e-04$	$1.0965e \cdot 01 \pm 6.33e \cdot 04$	1.1131e-01±8.22e-04	$1.1090e-01\pm4.76e-04$	$1.1962e-01\pm6.11e-04$	$1.0011e-01\pm1.13e-03$	$1.2066e-01\pm1.75e-03$	9.3288e-02±7.72e-04
	$E_1 z_{p\nu}$ Corr.	-1.1266e-01±5.38e-04	5020 7.7486e-02±5.94e-04 1-1.1330e-01±5.18e-04 1-1.13324e-01±6.20e-04 7.3451e-01±1.59e-03 7.3283e-01±1.49e-03 1-1.6673e-01±4.17e-04	5090 5.2222e-02±7.32e-04 -1.5003e-01±6.77e-04 1.4210e-01±5.30e-04 7.2554e-01±8.62e-04 7.2453e-01±8.35e-04	-1.0848e-01±4.30e-04 1.0965e-01±6.33e-04 7.3480e-01±4.13e-04 7.3292e-01±5.18e-04	5071 7.5936e-02±6.93e-04 -1.0937e-01±5.61e-04 1.1131e-01±8.22e-04 7.3305e-01±9.58e-04 7.3331e-01±6.74e-04 1.16233e-01±7.89e-04	$5072 7.5866e 02\pm 7.86e - 04 -1.0922e - 01\pm 5.14e - 04 -1.1090e - 01\pm 4.76e - 04 7.3313e - 01\pm 1.15e - 03 7.3312e - 01\pm 1.47e - 03 -1.6191e - 01\pm 2.58e - 04 -1.6191e - 01\pm 2.88e - 04 -1.6181e - 01\pm 2.88e -$	5130 7.4571e-02±9.32e-04 1-1.2320e-01±8.25e-04 1.1962e-01±6.11e-04 7.3254e-01±1.17e-03 7.3280e-01±1.22e-03 1-1.7842e-01±6.76e-04	$5131 8.1598 - 02 \pm 8.02 - 04 -1.2301 e - 01 \pm 1.87 - 03 1.0011 e - 01 \pm 1.13 - 03 7.3436 e - 01 \pm 1.18 e - 03 7.3579 e - 01 \pm 1.17 e - 03 -1.6459 e - 01 \pm 1.51 e - 03 -1.6459 e - 01 \pm 1.51 e - 03 -1.6459 e - 0.1 \pm 1.17 e - 03 -1.6459 e - 0.1 \pm 1.17 e - 03 -1.6459 e - 0.1 \pm 1.17 e - 03 -1.6459 e - 0.1 \pm 1.17 e - 03 -1.6459 e - 0.1 \pm 1.17 e - 03 -1.6459 e - 0.1 \pm 1.17 e - 03 -1.6459 e - 0.1 \pm 1.17 e - 03 -1.6459 e - 0.1 \pm 1.17 e - 03 -1.6459 e - 0.1 \pm 1.17 e - 03 -1.6459 e - 0.1 \pm 1.17 e - 03 -1.6459 e - 0.1 \pm 1.17 e - $	-9.3551e-02±1.82e-03 1.2066e-01±1.75e-03 7.3907e-01±1.08e-03 7.3413e-01±1.00e-03	9.2284e-02±4.48e-04 -9.2356e-02±7.56e-04 9.3288e-02±7.72e-04 7.3962e-01±6.78e-04 7.3779e-01±8.25e-04
	E_1E_2 Corr.	7.8942e-02±5.27e-04	7.7486e-02±5.94e-04	5.2222e-02±7.32e-04	7.7907e-02±4.54e-04	7.5936e-02±6.93e-04	7.5866e-02±7.86e-04	$7.4571e-02\pm9.32e-04$	8.1598e-02±8.02e-04	8.6147e-02±1.02e-03	9.2284e-02±4.48e-04
	Run#	2060	5020	2090	5070	5071	5072	5130	5131	5132	5133

Guinea Pig Correlations p-values (Permutation, Welch)	Corr. $E_2 z_{pp}$ Corr. $E_1 \sqrt{s}$ Corr. $E_2 \sqrt{s}$ Corr. $E_1 - E_2 z_{pp}$ Corr.	2,7.2125e-02 6.0491e-02,6.0089e-02 1.6597e-01,1.6656e-01 7.0017e-02,7.2319e-02 8.5151e-01,8.4187e-01	$1.5.9846c01 \qquad 1.7006c-02.1.4706c-02 \qquad 5.1144c-01.5.1597c-01 \qquad 2.8020c-01.2.8356c-01 \qquad 1.5166c-02.1.3605c-02 \qquad 1.5166c-02 \qquad 1.5166$	1.0825e-05.2.0578e-12 1.0825e-05.1.7051e-15 1.0825e-05.1.7138e-15 1.8727e-03.3.8158e-03 9.7426e-05.1.0041e-05 1.0825e-05.1.3361e-17	3,1471e-03 8.8611e-01,8.8141e-01 2.0181e-01,2.0791e-01 7.4693e-02,7.6567e-02 9.7318e-03,1.3640e-02	$1.7959e-02.1.6306e-02 \\ \hline 2.6569e-01.2.6519e-01 \\ \hline 8.1306e-01.8.1240e-01 \\ \hline 1.4974e-01.1.4979e-01 \\ \hline 4.2079e-01.4.2243e-01 \\ \hline 4.2079e-01.4.2243e-01 \\ \hline 8.1306e-01.8.1240e-01 \\ \hline 8.1306e-01.8.124$	$5.8304e - 02.5.9193e - 02 \\ \hline 1.0717e - 02.9.6745e - 03 \\ \hline 2.017e - 01,2.4656e - 01 \\ \hline 8.0719e - 01,8.0474e - 01 \\ \hline 3.2466e - 01,3.2526e - 01 \\ \hline 1.0644e - 01,1.1400e - 01 \\ \hline 1.064$	$2.0773e - 02.2.2735e - 02 \\ \begin{array}{c cccccccccccccccccccccccccccccccccc$	4.0486e-03,7.2056e-03 5.5208e-04,4.4906e-04 4.6303e-01,4.6419e-01 9.7602e-01,9.7246e-01 7.6323e-01,7.1056e-01	1.3640e-03,1.5711e-03 1.1908e-04,7.1470e-05 1.9593e-03,2.8961e-03 1.2492e-02,1.2100e-02 4.1011e-01,4.1229e-01 9.5943e-02,1.1825e-01 9.5943e-02,1.1825e-02,1	5133,5060 1.0825e-05,6.2939e-10 1.0825e-05,2.4178e-10 1.0825e-05,9.6845e-09 2.3815e-03,1.9404e-03 3.1761e-01,3.1569e-01 1.0825e-05,1.4815e-12 1.0825e-05,1.481
s (Permutation, Welch)	$E_1 \sqrt{s} \text{ Corr.}$	2 1.6597e-01,1.6656e-0	; 5.1144e-01,5.1597e-0	5 1.8727e-03,3.8158e-0.	2.0181e-01,2.0791e-0	8.1306e-01,8.1240e-0	8.0719e-01,8.0474e-0	7 9.9673e-01,9.9359e-0	4.6303e-01,4.6419e-0	3 1.2492e-02,1.2100e-0.	2.3815e-03,1.9404e-0.
Pig Correlations p-values	$E_2 z_{p\nu}$ Corr.	6.0491e-02,6.0089e-02		1.0825e-05,1.7138e-15		2.6569e-01,2.6519e-01	2.5017e-01,2.4656e-01	2.1650e-05,6.3998e-07	5.5208e-04,4.4906e-04	1.9593e-03,2.8961e-03	1.0825e-05,9.6845e-09
Guinea	$E_1 z_{p\nu}$ Corr.	6.8350e-02,7.2125e-02	5.9959e-01,5.9846e-01	1.0825e-05,1.7051e-15	1.3640e-03,1.4171e-03	1.7959e-02,1.6306e-02	1.0717e-02,9.6745e-03	2.1650e-05,6.0649e-06	4.0486e-03,7.2056e-03	1.1908e-04,7.1470e-05	1.0825e-05,2.4178e-10
	E_1E_2 Corr.	2.9236e-01,2.9590e-01	2.7758e-01,2.6649e-01	1.0825e-05,2.0578e-12	3.6306e-01,3.6469e-01	4.5162e-02,4.5429e-02	5.8304e-02,5.9193e-02	2.0773e-02,2.2735e-02	1.0058e-01,1.0323e-01	1.3640e-03,1.5711e-03	1.0825e-05,6.2939e-10
	Run #	2060,6060	5020,5060	5090,5060	5070,5060	5071,5060	5072,5060	5130,5060	5131,5060	5132,5060	5133,5060