

Integrated asymmetry over neutron flash

Integration is over 1000:1600

DetA, weighted with NaI

$$Asymm = \frac{\sum_{ii=1000}^{1600} (|\frac{up(ii)}{wup} - \frac{upbkg(ii)}{wupbkg}|) - \sum_{ii=1000}^{1600} (|\frac{sd(ii)}{wsd} - \frac{sdbkg(ii)}{wsdbkg}|)}{\sum_{ii=1000}^{1600} (|\frac{up(ii)}{wup} - \frac{upbkg(ii)}{wupbkg}|) - \sum_{ii=1000}^{1600} (|\frac{sd(ii)}{wsd} - \frac{sdbkg(ii)}{wsdbkg}|)}$$

up	upbg	sd	sdbg	asymm	up	upbg	sd	sdbg	asymm
40	44	48	52	-0.199	134	44	48	52	0.273
40	44	74	52	-0.107	134	44	74	52	0.357
40	44	78	52	0.060	134	44	78	52	0.494
40	44	82	52	-0.048	134	44	82	52	0.408
40	44	86	52	-0.029	134	44	86	52	0.424
40	44	90	52	-0.043	134	44	90	52	0.413
40	44	94	52	-0.033	134	44	94	52	0.420
40	44	146	52	-0.584	134	44	146	52	-0.185
40	44	180	52	-0.916	134	44	180	52	-0.795
40	44	190	52	0.545	134	44	190	52	0.798
40	44	225	52	-0.898	134	44	225	52	-0.754
40	44	235	52	0.480	134	44	235	52	0.764
56	44	48	52	-0.128	205	44	48	52	-0.721
56	44	74	52	-0.034	205	44	74	52	-0.673
56	44	78	52	0.133	205	44	78	52	-0.570
56	44	82	52	0.025	205	44	82	52	-0.639
56	44	86	52	0.044	205	44	86	52	-0.627
56	44	90	52	0.031	205	44	90	52	-0.635
56	44	94	52	0.040	205	44	94	52	-0.630
56	44	146	52	-0.534	205	44	146	52	-0.880
56	44	180	52	-0.904	205	44	180	52	-0.979
56	44	190	52	0.594	205	44	190	52	-0.097
56	44	225	52	-0.883	205	44	225	52	-0.974
56	44	235	52	0.535	205	44	235	52	-0.182
102	44	48	52	-0.350	210	44	48	52	-0.636
102	44	74	52	-0.264	210	44	74	52	-0.576
102	44	78	52	-0.102	210	44	78	52	-0.453
102	44	82	52	-0.208	210	44	82	52	-0.535
102	44	86	52	-0.190	210	44	86	52	-0.521
102	44	90	52	-0.203	210	44	90	52	-0.531
102	44	94	52	-0.194	210	44	94	52	-0.524
102	44	146	52	-0.681	210	44	146	52	-0.839
102	44	180	52	-0.939	210	44	180	52	-0.971
102	44	190	52	0.420	210	44	190	52	0.062
102	44	225	52	-0.926	210	44	225	52	-0.965
102	44	235	52	0.345	210	44	235	52	-0.025
108	44	48	52	-0.334	230	44	48	52	-0.664
108	44	74	52	-0.247	230	44	74	52	-0.608
108	44	78	52	-0.085	230	44	78	52	-0.491
108	44	82	52	-0.191	230	44	82	52	-0.569
108	44	86	52	-0.172	230	44	86	52	-0.556
108	44	90	52	-0.185	230	44	90	52	-0.565
108	44	94	52	-0.176	230	44	94	52	-0.559
108	44	146	52	-0.671	230	44	146	52	-0.853
108	44	180	52	-0.937	230	44	180	52	-0.974
108	44	190	52	0.435	230	44	190	52	0.013
108	44	225	52	-0.923	230	44	225	52	-0.968
108	44	235	52	0.361	230	44	235	52	-0.074

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up	upbg	sd	sdbg	asymm	up	upbg	sd	sdbg	asymm
49	53	41	45	-0.106	95	53	41	45	-0.253
49	53	57	45	-0.182	95	53	57	45	-0.325
49	53	103	45	0.082	95	53	103	45	-0.070
49	53	107	45	0.069	95	53	107	45	-0.083
49	53	135	45	-0.647	95	53	135	45	-0.727
49	53	206	45	-0.548	95	53	206	45	0.433
49	53	211	45	0.448	95	53	211	45	0.318
49	53	231	45	0.428	95	53	231	45	0.296
75	53	41	45	-0.199	147	53	41	45	0.275
75	53	57	45	-0.273	147	53	57	45	0.202
75	53	103	45	-0.013	147	53	103	45	0.440
75	53	107	45	-0.026	147	53	107	45	0.429
75	53	135	45	-0.699	147	53	135	45	-0.363
75	53	206	45	0.478	147	53	206	45	0.764
75	53	211	45	0.368	147	53	211	45	0.702
75	53	231	45	0.347	147	53	231	45	0.689
79	53	41	45	-0.324	181	53	41	45	0.841
79	53	57	45	-0.392	181	53	57	45	0.816
79	53	103	45	-0.146	181	53	103	45	0.888
79	53	107	45	-0.159	181	53	107	45	0.885
79	53	135	45	-0.761	181	53	135	45	0.508
79	53	206	45	0.368	181	53	206	45	0.960
79	53	211	45	0.247	181	53	211	45	0.948
79	53	231	45	0.224	181	53	231	45	0.945
83	53	41	45	-0.247	191	53	41	45	-0.682
83	53	57	45	-0.319	191	53	57	45	-0.722
83	53	103	45	-0.063	191	53	103	45	-0.568
83	53	107	45	-0.077	191	53	107	45	-0.577
83	53	135	45	-0.724	191	53	135	45	-0.905
83	53	206	45	0.438	191	53	206	45	-0.111
83	53	211	45	0.324	191	53	211	45	-0.241
83	53	231	45	0.302	191	53	231	45	-0.263
87	53	41	45	-0.261	226	53	41	45	0.859
87	53	57	45	-0.332	226	53	57	45	0.837
87	53	103	45	-0.078	226	53	103	45	0.901
87	53	107	45	-0.091	226	53	107	45	0.899
87	53	135	45	-0.731	226	53	135	45	0.556
87	53	206	45	0.426	226	53	206	45	0.965
87	53	211	45	0.310	226	53	211	45	0.954
87	53	231	45	0.288	226	53	231	45	0.952
91	53	41	45	-0.247	236	53	41	45	-0.623
91	53	57	45	-0.319	236	53	57	45	-0.669
91	53	103	45	-0.063	236	53	103	45	-0.494
91	53	107	45	-0.076	236	53	107	45	-0.504
91	53	135	45	-0.724	236	53	135	45	-0.884
91	53	206	45	0.439	236	53	206	45	-0.008
91	53	211	45	0.324	236	53	211	45	-0.141
91	53	231	45	0.302	236	53	231	45	-0.165

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up	upbg	sd	sdbg	asymm		up	upbg	sd	sdbg	asymm	
40	44	48	52	-0.248	(+-0.498)	134	44	48	52	-0.927	(+-0.963)
40	44	74	52	-0.274	(+-0.523)	134	44	74	52	-0.931	(+-0.965)
40	44	78	52	-0.210	(+-0.459)	134	44	78	52	-0.922	(+-0.960)
40	44	82	52	-0.232	(+-0.482)	134	44	82	52	-0.925	(+-0.962)
40	44	86	52	-0.232	(+-0.482)	134	44	86	52	-0.925	(+-0.962)
40	44	90	52	-0.243	(+-0.493)	134	44	90	52	-0.927	(+-0.963)
40	44	94	52	-0.245	(+-0.495)	134	44	94	52	-0.927	(+-0.963)
40	44	146	52	0.515	(+-0.718)	134	44	146	52	-0.673	(+-0.820)
40	44	180	52	0.336	(+-0.579)	134	44	180	52	-0.777	(+-0.881)
40	44	190	52	-0.092	(+-0.303)	134	44	190	52	-0.901	(+-0.949)
40	44	225	52	-0.111	(+-0.333)	134	44	225	52	-0.905	(+-0.951)
40	44	235	52	-0.293	(+-0.542)	134	44	235	52	-0.934	(+-0.966)
56	44	48	52	-0.248	(+-0.498)	205	44	48	52	-0.320	(+-0.566)
56	44	74	52	-0.274	(+-0.523)	205	44	74	52	-0.345	(+-0.587)
56	44	78	52	-0.210	(+-0.459)	205	44	78	52	-0.284	(+-0.533)
56	44	82	52	-0.232	(+-0.482)	205	44	82	52	-0.305	(+-0.552)
56	44	86	52	-0.232	(+-0.481)	205	44	86	52	-0.305	(+-0.552)
56	44	90	52	-0.243	(+-0.493)	205	44	90	52	-0.315	(+-0.561)
56	44	94	52	-0.245	(+-0.495)	205	44	94	52	-0.317	(+-0.563)
56	44	146	52	0.515	(+-0.718)	205	44	146	52	0.456	(+-0.675)
56	44	180	52	0.336	(+-0.580)	205	44	180	52	0.265	(+-0.514)
56	44	190	52	-0.092	(+-0.303)	205	44	190	52	-0.169	(+-0.411)
56	44	225	52	-0.111	(+-0.333)	205	44	225	52	-0.187	(+-0.433)
56	44	235	52	-0.293	(+-0.542)	205	44	235	52	-0.363	(+-0.603)
102	44	48	52	-0.213	(+-0.462)	210	44	48	52	-0.228	(+-0.477)
102	44	74	52	-0.240	(+-0.490)	210	44	74	52	-0.254	(+-0.504)
102	44	78	52	-0.175	(+-0.419)	210	44	78	52	-0.190	(+-0.436)
102	44	82	52	-0.198	(+-0.444)	210	44	82	52	-0.212	(+-0.460)
102	44	86	52	-0.197	(+-0.444)	210	44	86	52	-0.212	(+-0.460)
102	44	90	52	-0.208	(+-0.456)	210	44	90	52	-0.223	(+-0.472)
102	44	94	52	-0.210	(+-0.458)	210	44	94	52	-0.224	(+-0.474)
102	44	146	52	0.542	(+-0.736)	210	44	146	52	0.531	(+-0.729)
102	44	180	52	0.368	(+-0.606)	210	44	180	52	0.355	(+-0.595)
102	44	190	52	-0.055	(+-0.235)	210	44	190	52	-0.070	(+-0.265)
102	44	225	52	-0.075	(+-0.273)	210	44	225	52	-0.090	(+-0.300)
102	44	235	52	-0.260	(+-0.510)	210	44	235	52	-0.274	(+-0.523)
108	44	48	52	-0.205	(+-0.453)	230	44	48	52	-0.032	(+-0.180)
108	44	74	52	-0.231	(+-0.481)	230	44	74	52	-0.060	(+-0.245)
108	44	78	52	-0.167	(+-0.408)	230	44	78	52	0.007	(+-0.085)
108	44	82	52	-0.189	(+-0.435)	230	44	82	52	-0.016	(+-0.126)
108	44	86	52	-0.189	(+-0.434)	230	44	86	52	-0.015	(+-0.124)
108	44	90	52	-0.200	(+-0.447)	230	44	90	52	-0.027	(+-0.164)
108	44	94	52	-0.202	(+-0.449)	230	44	94	52	-0.029	(+-0.170)
108	44	146	52	0.548	(+-0.740)	230	44	146	52	0.659	(+-0.812)
108	44	180	52	0.375	(+-0.613)	230	44	180	52	0.515	(+-0.718)
108	44	190	52	-0.047	(+-0.216)	230	44	190	52	0.128	(+-0.358)
108	44	225	52	-0.066	(+-0.257)	230	44	225	52	0.109	(+-0.330)
108	44	235	52	-0.251	(+-0.501)	230	44	235	52	-0.081	(+-0.285)

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up	upbg	sd	sdbg	asymm		up	upbg	sd	sdbg	asymm	
49	53	41	45	-0.163	(+-0.404)	95	53	41	45	-0.138	(+-0.371)
49	53	57	45	-0.172	(+-0.415)	95	53	57	45	-0.147	(+-0.383)
49	53	103	45	-0.155	(+-0.393)	95	53	103	45	-0.129	(+-0.359)
49	53	107	45	-0.159	(+-0.399)	95	53	107	45	-0.133	(+-0.365)
49	53	135	45	0.404	(+-0.636)	95	53	135	45	0.426	(+-0.652)
49	53	206	45	0.007	(+-0.085)	95	53	206	45	0.033	(+-0.182)
49	53	211	45	-0.081	(+-0.284)	95	53	211	45	-0.055	(+-0.234)
49	53	231	45	-0.306	(+-0.553)	95	53	231	45	-0.282	(+-0.531)
75	53	41	45	-0.127	(+-0.356)	147	53	41	45	-0.882	(+-0.939)
75	53	57	45	-0.136	(+-0.369)	147	53	57	45	-0.884	(+-0.940)
75	53	103	45	-0.118	(+-0.344)	147	53	103	45	-0.880	(+-0.938)
75	53	107	45	-0.123	(+-0.350)	147	53	107	45	-0.881	(+-0.938)
75	53	135	45	0.435	(+-0.659)	147	53	135	45	-0.659	(+-0.812)
75	53	206	45	0.044	(+-0.210)	147	53	206	45	-0.837	(+-0.915)
75	53	211	45	-0.044	(+-0.209)	147	53	211	45	-0.862	(+-0.928)
75	53	231	45	-0.272	(+-0.521)	147	53	231	45	-0.911	(+-0.955)
79	53	41	45	-0.153	(+-0.391)	181	53	41	45	-0.785	(+-0.886)
79	53	57	45	-0.162	(+-0.403)	181	53	57	45	-0.788	(+-0.888)
79	53	103	45	-0.145	(+-0.380)	181	53	103	45	-0.782	(+-0.884)
79	53	107	45	-0.149	(+-0.386)	181	53	107	45	-0.783	(+-0.885)
79	53	135	45	0.413	(+-0.642)	181	53	135	45	-0.434	(+-0.659)
79	53	206	45	0.018	(+-0.132)	181	53	206	45	-0.709	(+-0.842)
79	53	211	45	-0.070	(+-0.265)	181	53	211	45	-0.750	(+-0.866)
79	53	231	45	-0.296	(+-0.544)	181	53	231	45	-0.836	(+-0.915)
83	53	41	45	-0.163	(+-0.403)	191	53	41	45	-0.170	(+-0.412)
83	53	57	45	-0.172	(+-0.415)	191	53	57	45	-0.179	(+-0.423)
83	53	103	45	-0.154	(+-0.393)	191	53	103	45	-0.161	(+-0.402)
83	53	107	45	-0.159	(+-0.398)	191	53	107	45	-0.166	(+-0.407)
83	53	135	45	0.404	(+-0.636)	191	53	135	45	0.398	(+-0.631)
83	53	206	45	0.008	(+-0.087)	191	53	206	45	0.000	(+-0.015)
83	53	211	45	-0.080	(+-0.283)	191	53	211	45	-0.088	(+-0.296)
83	53	231	45	-0.305	(+-0.553)	191	53	231	45	-0.312	(+-0.559)
87	53	41	45	-0.157	(+-0.396)	226	53	41	45	-0.187	(+-0.432)
87	53	57	45	-0.166	(+-0.407)	226	53	57	45	-0.196	(+-0.442)
87	53	103	45	-0.148	(+-0.385)	226	53	103	45	-0.178	(+-0.422)
87	53	107	45	-0.153	(+-0.391)	226	53	107	45	-0.182	(+-0.427)
87	53	135	45	0.409	(+-0.640)	226	53	135	45	0.384	(+-0.619)
87	53	206	45	0.014	(+-0.117)	226	53	206	45	-0.017	(+-0.130)
87	53	211	45	-0.074	(+-0.272)	226	53	211	45	-0.105	(+-0.323)
87	53	231	45	-0.300	(+-0.548)	226	53	231	45	-0.327	(+-0.572)
91	53	41	45	-0.143	(+-0.378)	236	53	41	45	0.062	(+-0.249)
91	53	57	45	-0.152	(+-0.390)	236	53	57	45	0.053	(+-0.230)
91	53	103	45	-0.134	(+-0.366)	236	53	103	45	0.071	(+-0.266)
91	53	107	45	-0.138	(+-0.372)	236	53	107	45	0.066	(+-0.258)
91	53	135	45	0.421	(+-0.649)	236	53	135	45	0.575	(+-0.758)
91	53	206	45	0.028	(+-0.167)	236	53	206	45	0.230	(+-0.479)
91	53	211	45	-0.060	(+-0.245)	236	53	211	45	0.145	(+-0.381)
91	53	231	45	-0.287	(+-0.535)	236	53	231	45	-0.089	(+-0.298)

Weighted coefficient used

$Weight(NaI) = \sum_{bin=1}^{4096} Counts$	$Weight(Ref) = \sum_{bin=1}^{999} (bin * Counts)$
weight(40:43) = 8.623221e+09; weight(44:47) = 8.281415e+09; weight(48:51) = 3.039250e+09; weight(52:55) = 2.060617e+09; weight(56:59) = 2.143235e+09; weight(60:63) = 2.122709e+09; weight(66:69) = no data; weight(70:73) = 3.403121e+09; weight(74:77) = 3.395292e+09; weight(78:81) = 3.029521e+09; weight(82:85) = 3.147978e+09; weight(86:89) = 2.961406e+09; weight(90:93) = 2.987828e+09; weight(94:97) = 2.943226e+09; weight(98:101) = 3.143131e+09; weight(102:105) = 2.882015e+09; weight(106:109) = 2.900737e+09; weight(110:113) = 3.086018e+09; weight(114:117) = 3.030966e+09; weight(118:121) = 2.145553e+09; weight(122:125) = 3.794774e+09; weight(126:129) = 6.115635e+09; weight(130:133) = 5.024184e+07; weight(134:137) = 1.780831e+09; weight(138:141) = 2.018674e+09; weight(142:145) = 2.191290e+09; weight(146:149) = 2.258388e+09; weight(160:163) = 1.282850e+10; weight(165:168) = 9.842240e+08; weight(170:173) = 1.397019e+09; weight(175:178) = 1.757314e+09; weight(180:183) = 1.942731e+08; weight(190:193) = 3.505650e+09; weight(195:198) = 4.071781e+09; weight(200:203) = 3.472952e+09; weight(205:208) = 3.688748e+09; weight(210:213) = 3.326511e+09; weight(215:218) = 4.376915e+09; weight(220:223) = 1.713648e+09; weight(225:228) = 2.982960e+08; weight(230:233) = 3.148673e+09; weight(235:238) = 3.102908e+09;	weight(40:43) = 1.821500e+05; weight(44:47) = 6.528000e+04; weight(48:51) = 6.327300e+04; weight(52:55) = 1.698000e+04; weight(56:59) = 5.192500e+04; weight(60:63) = 1.878800e+04; weight(66:69) = 2.287600e+04; weight(70:73) = 2.300700e+04; weight(74:77) = 5.593000e+04; weight(78:81) = 4.097100e+04; weight(82:85) = 5.020100e+04; weight(86:89) = 4.555500e+04; weight(90:93) = 4.614900e+04; weight(94:97) = 4.452500e+04; weight(98:101) = 2.020500e+04; weight(102:105) = 4.250700e+04; weight(106:109) = 4.356800e+04; weight(110:113) = 1.916000e+04; weight(114:117) = 1.893100e+04; weight(118:121) = 1.435400e+04; weight(122:125) = 2.440900e+04; weight(126:129) = 1.243320e+05; weight(130:133) = 1.135800e+04; weight(134:137) = 4.516130e+05; weight(138:141) = 3.913860e+05; weight(142:145) = 4.071810e+05; weight(146:149) = 4.786810e+05; weight(160:163) = 5.277650e+05; weight(165:168) = 5.464160e+05; weight(170:173) = 8.710520e+05; weight(175:178) = 9.277140e+05; weight(180:183) = 1.715990e+05; weight(190:193) = 2.157800e+04; weight(195:198) = 1.380600e+04; weight(200:203) = 1.502500e+04; weight(205:208) = 2.610900e+04; weight(210:213) = 2.579600e+04; weight(215:218) = 3.119300e+04; weight(220:223) = 5.096000e+04; weight(225:228) = 9.774800e+04; weight(230:233) = 1.608600e+04; weight(235:238) = 1.512900e+04;