

Table 1: Scale Factors for Cut-Based e-veto

Selection	scale factor	total	stat	+syst	- syst
Loose Bar	0.6257705	0.0982852	0.0279292	0.0941661	0.0942341
Loose Cra	0.3021584	0.1260599	0.1193593	0.0405525	0.0390694
Loose End	1.0406951	0.0365485	0.0157105	0.0183089	0.0330013
Loose (TOL) Bar	0.5983053	0.1254452	0.0325924	0.1209363	0.1211376
Loose (TOL) Cra	0.2760863	0.1405983	0.1313796	0.0500742	0.0484721
Loose (TOL) End	1.0352765	0.1560000	0.0474824	0.1319244	0.1485986
Loose (MOL) Bar	1.0446970	0.2389550	0.1479619	0.1859310	0.1876348
Loose (MOL) Cra	1.1705655	1.3991101	1.3855863	0.1940615	0.1937069
Loose (MOL) End	1.6381337	0.2178476	0.1133154	0.0695408	0.1860574
Medium Bar	0.8566553	0.1785032	0.1104538	0.1391233	0.1402264
Medium Cra	0.4546637	0.2899015	0.2794361	0.0771910	0.0671342
Medium End	1.2828514	0.1469986	0.1243293	0.0784277	0.0749693
Medium (TOL) Bar	0.8839826	0.2409429	0.1403532	0.1951161	0.1958433
Medium (TOL) Cra	0.4452730	0.3349528	0.3227278	0.0896676	0.0810785
Medium (TOL) End	1.1430444	0.2305291	0.1719112	0.1535914	0.1497096
Medium (MOL) Bar	1.0301337	0.3686962	0.2235289	0.2917306	0.2932096
Medium (MOL) Cra	1.5347275	2.3567893	2.3221121	0.4028044	0.3457994
Medium (MOL) End	1.4131778	0.4879900	0.3573934	0.3247434	0.3322715
Tight Bar	1.0622332	0.4876926	0.3157745	0.3684522	0.3716593
Tight Cra	0.5866060	0.8436560	0.8140854	0.2214058	0.1887062
Tight End	1.5045374	0.2508543	0.2069826	0.1417259	0.1260782
Tight (TOL) Bar	1.1134681	0.5643941	0.3647174	0.4266941	0.4307228
Tight (TOL) Cra	0.6088463	0.8758285	0.8450527	0.2301339	0.1962782
Tight (TOL) End	1.2247363	0.4966314	0.3430198	0.3591383	0.3117440
Tight (MOL) Bar	1.4195722	0.9444573	0.6357702	0.6932957	0.6984240
Tight (MOL) Cra	3.4701761	8.7433772	8.5728409	1.7184424	1.4684825
Tight (MOL) End	1.5286073	0.8289282	0.5988222	0.5731789	0.5215664

Table 2: Scale Factors for BDT-Based e-veto

Selection	scale factor	total	stat	+syst	- syst
Loose Bar	1.0486101	0.3007756	0.1404170	0.2653917	0.2659872
Loose Cra	0.9072701	0.5092535	0.4935090	0.1254477	0.1256509
Loose End	1.4721194	0.3612649	0.1419335	0.3250536	0.3322158
Loose (TOL) Bar	1.0750012	0.3298569	0.1520857	0.2919949	0.2927040
Loose (TOL) Cra	0.8757176	0.5122680	0.4960648	0.1278219	0.1270465
Loose (TOL) End	1.7416752	0.7426429	0.2468432	0.6582557	0.7004192
Loose (MOL) Bar	1.6684309	0.6474884	0.3393170	0.5485611	0.5514575
Loose (MOL) Cra	2.4283798	2.4066160	2.3630791	0.4556949	0.3958300
Loose (MOL) End	2.0162155	0.7528992	0.4542226	0.6004492	0.5815009
Medium Bar	1.3992409	0.8288937	0.4230826	0.7094202	0.7127876
Medium Cra	1.2097261	2.3513719	2.2749426	0.5946311	0.5924699
Medium End	2.1761933	0.8969599	0.7528507	0.4875749	0.4875994
Medium (TOL) Bar	1.4344579	0.8599061	0.4448212	0.7322283	0.7359163
Medium (TOL) Cra	1.2099329	2.3517776	2.2753376	0.5947242	0.5925626
Medium (TOL) End	2.0246620	1.1475679	0.8891676	0.7254607	0.7082068
Medium (MOL) Bar	2.3768167	1.3907561	0.8279916	1.1050374	1.1174224
Medium (MOL) Cra	2.8746704	7.1318032	6.9531275	1.5863907	1.5760754
Medium (MOL) End	2.6918164	2.1382759	1.6632606	1.3437962	1.1706635
Tight Bar	1.8989914	1.4138845	0.8487204	1.1235072	1.1308153
Tight Cra	2.6140709	4.7268241	4.6456522	0.7957278	0.8722281
Tight End	1.8659986	2.5453365	2.0514781	1.5067103	1.4742593
Tight (TOL) Bar	1.9462754	1.4425542	0.8791827	1.1357984	1.1436785
Tight (TOL) Cra	2.6150722	4.7288675	4.6476616	0.7960642	0.8725996
Tight (TOL) End	1.8012773	2.7157857	2.1516860	1.6570273	1.6291048
Tight (MOL) Bar	2.9021511	1.9845605	1.3478160	1.4394267	1.4566649
Tight (MOL) Cra	4.9981701	13.0330370	12.9515514	1.2498928	1.4551191
Tight (MOL) End	2.8083758	4.1546489	3.5277698	2.1945268	2.0567449