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NLO-NLL wino-like chargino-neutralino cross sections

The following cross sections are for pure wino-like chargino-neutralino pair production (sum of chi+ chi0 and chi- chi0). They have been calculated for sqrt(s) = 8 TeV at NLO-NLL using the resummino code from B. Fuks et al with CTEQ6.6 PDFs. The calculation assumes the chargino and neutralino are degenerate, with mass denoted below as mchi.

When using these cross sections, please cite the following two references, available below in bibtex format:

Show References Hide References

```
@article{Fuks:2012qx,
      author         = "Fuks, Benjamin and Klasen, Michael and Lamprea, David R.
                        and Rothering, Marcel",
      title          = "{Gaugino production in proton-proton collisions at a
                        center-of-mass energy of 8 TeV}",
      journal        = "JHEP",
      volume         = "1210",
      pages          = "081",
      doi            = "10.1007/JHEP10(2012)081",
      year           = "2012",
      eprint         = "1207.2159",
      archivePrefix  = "arXiv",
      primaryClass   = "hep-ph",
      reportNumber   = "IPHC-PHENO-12-07, MS-TP-12-05",
      SLACcitation   = "%%CITATION = ARXIV:1207.2159;%%",
}

@article{Fuks:2013vua,
      author         = "Fuks, Benjamin and Klasen, Michael and Lamprea, David R.
                        and Rothering, Marcel",
      title          = "{Precision predictions for electroweak superpartner
                        production at hadron colliders with Resummino}",
      journal        = "Eur.Phys.J.",
      volume         = "C73",
      pages          = "2480",
      doi            = "10.1140/epjc/s10052-013-2480-0",
      year           = "2013",
      eprint         = "1304.0790",
      archivePrefix  = "arXiv",
      primaryClass   = "hep-ph",
      reportNumber   = "CERN-PH-TH-2013-064, IPHC-PHENO-13-02, MS-TP-13-06",
      SLACcitation   = "%%CITATION = ARXIV:1304.0790;%%",
}
```

mchi	xsec [fb]	uncertainty [fb]
100	11513.2	327.456
105	9691.99	300.506
110	8158.86	252.97
115	6868.25	212.954
120	5781.79	179.268
125	4867.2	150.91
130	4229.21	142.026
135	3674.84	123.409
140	3193.14	107.232

145	2774.58	93.1764
150	2410.89	80.9628
155	2137.58	77.4406
160	1895.26	68.6616
165	1680.4	60.8778
170	1489.9	53.9764
175	1321	47.8574
180	1187.85	45.9234
185	1068.13	41.2947
190	960.468	37.1325
195	863.66	33.3898
200	776.61	30.0244
205	705.741	29.3785
210	641.34	26.6976
215	582.815	24.2614
220	529.631	22.0474
225	481.3	20.0355
230	440.979	19.5865
235	404.036	17.9457
240	370.187	16.4422
245	339.175	15.0648
250	310.76	13.8027
255	286.567	13.579
260	264.258	12.5219
265	243.685	11.547
270	224.714	10.6481
275	207.22	9.81914
280	192.068	9.58977
285	178.025	8.88858
290	165.008	8.23866
295	152.943	7.63627
300	141.76	7.07792
305	131.999	7.00292
310	122.911	6.52074
315	114.448	6.07176
320	106.568	5.6537
325	99.23	5.26442
330	92.7227	5.04346
335	86.6421	4.71272
340	80.9603	4.40367
345	75.6511	4.11489
350	70.69	3.84504
355	66.2684	3.83909
360	62.1234	3.59896
365	58.2376	3.37385
370	54.5949	3.16281
375	51.18	2.96498
380	48.114	2.92729
385	45.2317	2.75193
390	42.522	2.58707

395	39.9747	2.43209
400	37.58	2.28639
405	35.3992	2.2092
410	33.3449	2.08099
415	31.4098	1.96023
420	29.587	1.84647
425	27.87	1.73932
430	26.3086	1.68981
435	24.8346	1.59514
440	23.4433	1.50577
445	22.1298	1.42141
450	20.89	1.34178
455	19.7552	1.3321
460	18.6821	1.25974
465	17.6673	1.19131
470	16.7076	1.12659
475	15.8	1.0654
480	14.9666	1.04261
485	14.1772	0.987612
490	13.4294	0.935518
495	12.721	0.886172
500	12.05	0.839429
505	11.4293	0.827275
510	10.8405	0.784659
515	10.2821	0.744238
520	9.75238	0.705899
525	9.25	0.669536
530	8.78566	0.677792
535	8.34464	0.643768
540	7.92575	0.611452
545	7.52789	0.580758
550	7.15	0.551605
555	6.79188	0.523977
560	6.45169	0.497732
565	6.12855	0.472802
570	5.82159	0.449121
575	5.53	0.409628
580	5.26109	0.400727
585	5.00525	0.38124
590	4.76186	0.362702
595	4.5303	0.345064
600	4.31	0.328284
605	4.10549	0.320611
610	3.91069	0.305398
615	3.72513	0.290907
620	3.54837	0.277104
625	3.38	0.263955
630	3.22188	0.264141
635	3.07116	0.251784
640	2.92749	0.240006

645	2.79054	0.228778
650	2.66	0.218076
655	2.53958	0.232024
660	2.42461	0.22152
665	2.31485	0.211492
670	2.21005	0.201917
675	2.11	0.192776
680	2.01599	0.184187
685	1.92616	0.17598
690	1.84034	0.168139
695	1.75834	0.160648
700	1.68	0.152473
705	1.60331	0.173934
710	1.53012	0.165994
715	1.46028	0.158417
720	1.39362	0.151185
725	1.33	0.144284
730	1.27099	0.137882
735	1.2146	0.131765
740	1.16071	0.125919
745	1.10921	0.120332
750	1.06	0.10043
755	1.01421	0.0997067
760	0.970401	0.0953997
765	0.928482	0.0912787
770	0.888375	0.0873358
775	0.85	0.0835631
780	0.8129	0.0838805
785	0.777419	0.0802193
790	0.743486	0.0767179
795	0.711035	0.0733694
800	0.68	0.070167
805	0.64936	0.0700685
810	0.620102	0.0669113
815	0.592161	0.0638964
820	0.565479	0.0610174
825	0.54	0.0582681
830	0.515951	0.0589908
835	0.492974	0.0563636
840	0.471019	0.0538535
845	0.450042	0.0514551
850	0.43	0.0491636
855	0.412656	0.0491414
860	0.396012	0.0471593
865	0.380039	0.0452571
870	0.36471	0.0434317
875	0.35	0.0416799
880	0.334723	0.0424832
885	0.320114	0.0406289
890	0.306141	0.0388555

895	0.292779	0.0371596
900	0.28	0.0355377
905	0.269198	0.0341667
910	0.258813	0.0328486
915	0.248828	0.0315814
920	0.239229	0.030363
925	0.23	0.0285319
930	0.221377	0.0300277
935	0.213078	0.028902
940	0.205089	0.0278184
945	0.197401	0.0267755
950	0.19	0.0257717
955	0.181226	0.0245816
960	0.172858	0.0234465
965	0.164876	0.0223638
970	0.157262	0.0213311
975	0.15	0.0193321
980	0.143453	0.0204239
985	0.137192	0.0195325
990	0.131203	0.0186799
995	0.125477	0.0178646
1000	0.12	0.0170848

-- BenHooberman - 31 Dec 2013

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