CDF Run II Preliminary, $L_{int} = 360$ pb^{-1}

systematic uncertainties on signal acceptance	
initial-state radiation (ISR)	3 %
α_s	3 %
parton distribution function (PDF)	3 %
trigger efficiency	1 %
lepton identification	2 %
track isolation	2 %
jet energy scale (JES)	1 %
total acceptance uncertainty	6 %

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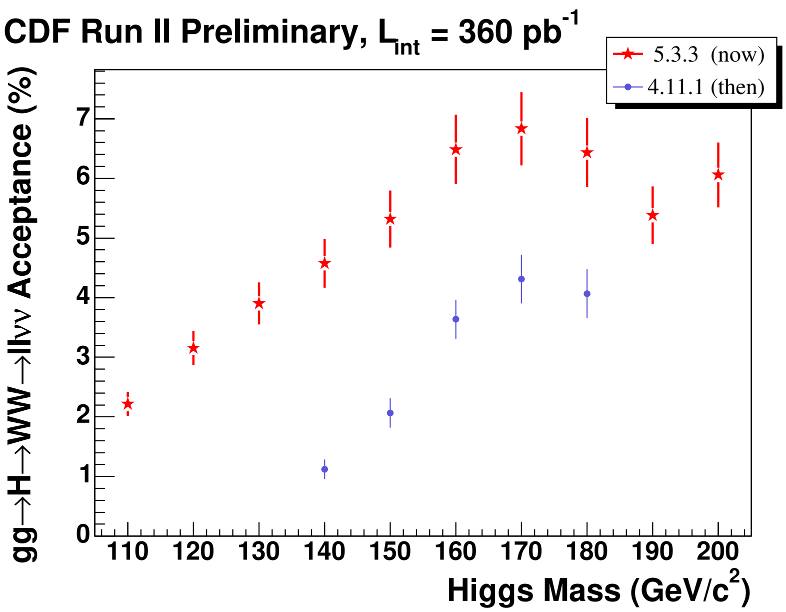
systematic uncertainties on backgrounds	
WW	9 %
WZ/ZZ	9 %
$W\gamma$	7 %
$t\bar{t}$	8 %
QCD/W+jet	50 %
Drell-Yan	20 %



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cut efficiency on the HWW dilepton signal ($M_H = 160$ GeV)	
lepton identification	9.14 ± 0.04 %
$M_{\ell\ell} > 16$ GeV	96.1 ± 0.06 %
jet requirement	88.2 ± 0.11 %
$\not{E}_t > M_H/4$	80.5 ± 0.14 %
$\not{E}_t > 50$ GeV $\|\|\Delta\phi_{\not{E}_t\text{, lepton/jet}} > 20^\circ$	96.4 ± 0.07 %
$M_{\ell\ell} < M_H/2 - 5$ GeV	98.9 ± 0.04 %
${p_t}^{\ell_1} + {p_t}^{\ell_2} + \not{E}_t < M_H$	97.2 ± 0.07 %
opposite signs of lepton charge	98.7 ± 0.04 %

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M_H	110	120	130	140	150
WW	3.838 ± 0.403	5.491 ± 0.576	6.826 ± 0.717	7.983 ± 0.838	9.132 ± 0.959
WZ	0.144 ± 0.019	0.230 ± 0.030	0.284 ± 0.037	0.338 ± 0.044	0.372 ± 0.048
ZZ	0.023 ± 0.004	0.025 ± 0.005	0.029 ± 0.005	0.032 ± 0.006	0.036 ± 0.007
$t\bar{t}$	0.080 ± 0.009	0.118 ± 0.013	0.152 ± 0.017	0.210 ± 0.023	0.281 ± 0.031
$W\gamma$	2.837 ± 0.209	2.895 ± 0.213	2.217 ± 0.163	1.967 ± 0.145	1.477 ± 0.109
DY$\ell\ell$	2.114 ± 0.529	1.635 ± 0.409	1.265 ± 0.316	1.014 ± 0.254	1.200 ± 0.300
fakes	1.595 ± 0.797	1.672 ± 0.836	1.780 ± 0.890	1.526 ± 0.763	1.507 ± 0.754
total BG	10.632 ± 1.059	12.066 ± 1.116	12.554 ± 1.198	13.071 ± 1.172	14.005 ± 1.262
HWW	0.028 ± 0.002	0.095 ± 0.006	0.205 ± 0.012	0.326 ± 0.020	0.436 ± 0.026
data	8	7	9	14	14

CDF Run II Preliminary, $L_{int} = 360$ pb^{-1}

M_H	160	170	180	190	200
WW	9.794 ± 1.028	9.967 ± 1.046	9.892 ± 1.039	9.623 ± 1.010	9.193 ± 0.965
WZ	0.365 ± 0.047	0.379 ± 0.049	0.433 ± 0.056	0.577 ± 0.075	0.860 ± 0.112
ZZ	0.036 ± 0.007	0.044 ± 0.008	0.062 ± 0.012	0.139 ± 0.026	0.302 ± 0.057
$t\bar{t}$	0.349 ± 0.038	0.399 ± 0.044	0.459 ± 0.050	0.518 ± 0.057	0.576 ± 0.063
$W\gamma$	1.142 ± 0.084	0.969 ± 0.071	0.816 ± 0.060	0.654 ± 0.048	0.477 ± 0.035
DY$\ell\ell$	0.763 ± 0.191	0.827 ± 0.207	0.827 ± 0.207	0.843 ± 0.211	0.958 ± 0.239
fakes	1.334 ± 0.667	1.242 ± 0.621	0.884 ± 0.442	0.800 ± 0.400	0.722 ± 0.361
total BG	13.784 ± 1.245	13.826 ± 1.238	13.373 ± 1.152	13.154 ± 1.112	13.089 ± 1.068
HWW	0.577 ± 0.035	0.541 ± 0.032	0.409 ± 0.025	0.238 ± 0.014	0.214 ± 0.013
data	16	18	19	19	17

CDF Run II Preliminary, $L_{int} = 360$ pb^{-1}

110 GeV	ee	$e\mu$	$\mu\mu$	$\ell\ell$
WW	0.893 ± 0.094	2.271 ± 0.238	0.674 ± 0.071	3.838 ± 0.403
WZ	0.033 ± 0.004	0.078 ± 0.010	0.034 ± 0.004	0.144 ± 0.019
ZZ	0.006 ± 0.001	0.007 ± 0.001	0.010 ± 0.002	0.023 ± 0.004
$t\bar{t}$	0.027 ± 0.003	0.027 ± 0.003	0.026 ± 0.003	0.080 ± 0.009
$W\gamma$	1.909 ± 0.140	0.929 ± 0.068	0.000 ± 0.000	2.837 ± 0.209
DY$\ell\ell$	0.915 ± 0.229	0.805 ± 0.201	0.394 ± 0.099	2.114 ± 0.529
fakes	0.564 ± 0.282	0.789 ± 0.395	0.241 ± 0.121	1.595 ± 0.797
total BG	4.348 ± 0.401	4.905 ± 0.508	1.380 ± 0.171	10.632 ± 1.059
HWW	0.007 ± 0.000	0.014 ± 0.001	0.007 ± 0.000	0.028 ± 0.002
data	3	3	2	8

CDF Run II Preliminary, $L_{int} = 360$ pb^{-1}

120 GeV	ee	$e\mu$	$\mu\mu$	$\ell\ell$
WW	1.330 ± 0.140	2.995 ± 0.314	1.166 ± 0.122	5.491 ± 0.576
WZ	0.068 ± 0.009	0.112 ± 0.015	0.050 ± 0.006	0.230 ± 0.030
ZZ	0.006 ± 0.001	0.008 ± 0.001	0.011 ± 0.002	0.025 ± 0.005
$t\bar{t}$	0.036 ± 0.004	0.046 ± 0.005	0.036 ± 0.004	0.118 ± 0.013
$W\gamma$	1.972 ± 0.145	0.923 ± 0.068	0.000 ± 0.000	2.895 ± 0.213
DY$\ell\ell$	0.695 ± 0.174	0.538 ± 0.134	0.402 ± 0.101	1.635 ± 0.409
fakes	0.635 ± 0.318	0.572 ± 0.286	0.465 ± 0.232	1.672 ± 0.836
total BG	4.743 ± 0.414	5.194 ± 0.451	2.129 ± 0.281	12.066 ± 1.116
HWW	0.025 ± 0.001	0.048 ± 0.003	0.022 ± 0.001	0.095 ± 0.006
data	2	4	1	7

CDF Run II Preliminary, $L_{int} = 360$ pb^{-1}

130 GeV	ee	$e\mu$	$\mu\mu$	$\ell\ell$
WW	1.689 ± 0.177	3.661 ± 0.384	1.477 ± 0.155	6.826 ± 0.717
WZ	0.074 ± 0.010	0.139 ± 0.018	0.072 ± 0.009	0.284 ± 0.037
ZZ	0.006 ± 0.001	0.010 ± 0.002	0.012 ± 0.002	0.029 ± 0.005
$t\bar{t}$	0.047 ± 0.005	0.060 ± 0.007	0.045 ± 0.005	0.152 ± 0.017
$W\gamma$	1.294 ± 0.095	0.923 ± 0.068	0.000 ± 0.000	2.217 ± 0.163
DY$\ell\ell$	0.547 ± 0.137	0.312 ± 0.078	0.407 ± 0.102	1.265 ± 0.316
fakes	0.682 ± 0.341	0.653 ± 0.326	0.445 ± 0.222	1.780 ± 0.890
total BG	4.339 ± 0.419	5.758 ± 0.515	2.458 ± 0.290	12.554 ± 1.198
HWW	0.052 ± 0.003	0.105 ± 0.006	0.047 ± 0.003	0.205 ± 0.012
data	2	6	1	9

CDF Run II Preliminary, $L_{int} = 360$ pb^{-1}

140 GeV	ee	$e\mu$	$\mu\mu$	$\ell\ell$
WW	1.942 ± 0.204	4.220 ± 0.443	1.821 ± 0.191	7.983 ± 0.838
WZ	0.090 ± 0.012	0.163 ± 0.021	0.084 ± 0.011	0.338 ± 0.044
ZZ	0.010 ± 0.002	0.010 ± 0.002	0.012 ± 0.002	0.032 ± 0.006
$t\bar{t}$	0.063 ± 0.007	0.090 ± 0.010	0.058 ± 0.006	0.210 ± 0.023
$W\gamma$	1.127 ± 0.083	0.841 ± 0.062	0.000 ± 0.000	1.967 ± 0.145
DY$\ell\ell$	0.311 ± 0.078	0.248 ± 0.062	0.456 ± 0.114	1.014 ± 0.254
fakes	0.655 ± 0.328	0.595 ± 0.297	0.276 ± 0.138	1.526 ± 0.763
total BG	4.199 ± 0.402	6.166 ± 0.541	2.707 ± 0.262	13.071 ± 1.172
HWW	0.081 ± 0.005	0.168 ± 0.010	0.078 ± 0.005	0.326 ± 0.020
data	4	6	4	14

CDF Run II Preliminary, $L_{int} = 360$ pb^{-1}

150 GeV	ee	$e\mu$	$\mu\mu$	$\ell\ell$
WW	2.326 ± 0.244	4.752 ± 0.499	2.053 ± 0.216	9.132 ± 0.959
WZ	0.106 ± 0.014	0.164 ± 0.021	0.102 ± 0.013	0.372 ± 0.048
ZZ	0.009 ± 0.002	0.010 ± 0.002	0.017 ± 0.003	0.036 ± 0.007
$t\bar{t}$	0.071 ± 0.008	0.127 ± 0.014	0.083 ± 0.009	0.281 ± 0.031
$W\gamma$	0.784 ± 0.058	0.693 ± 0.051	0.000 ± 0.000	1.477 ± 0.109
DY$\ell\ell$	0.624 ± 0.156	0.253 ± 0.063	0.323 ± 0.081	1.200 ± 0.300
fakes	0.617 ± 0.309	0.563 ± 0.281	0.327 ± 0.163	1.507 ± 0.754
total BG	4.538 ± 0.428	6.562 ± 0.579	2.904 ± 0.283	14.005 ± 1.262
HWW	0.105 ± 0.006	0.225 ± 0.014	0.105 ± 0.006	0.436 ± 0.026
data	4	5	5	14

CDF Run II Preliminary, $L_{int} = 360$ pb^{-1}

160 GeV	ee	$e\mu$	$\mu\mu$	$\ell\ell$
WW	2.582 ± 0.271	5.017 ± 0.527	2.196 ± 0.231	9.794 ± 1.028
WZ	0.105 ± 0.014	0.161 ± 0.021	0.099 ± 0.013	0.365 ± 0.047
ZZ	0.012 ± 0.002	0.006 ± 0.001	0.018 ± 0.003	0.036 ± 0.007
$t\bar{t}$	0.098 ± 0.011	0.163 ± 0.018	0.088 ± 0.010	0.349 ± 0.038
$W\gamma$	0.691 ± 0.051	0.452 ± 0.033	0.000 ± 0.000	1.142 ± 0.084
DY$\ell\ell$	0.315 ± 0.079	0.182 ± 0.046	0.266 ± 0.066	0.763 ± 0.191
fakes	0.616 ± 0.308	0.482 ± 0.241	0.237 ± 0.118	1.334 ± 0.667
total BG	4.418 ± 0.421	6.463 ± 0.583	2.903 ± 0.268	13.784 ± 1.245
HWW	0.138 ± 0.008	0.299 ± 0.018	0.141 ± 0.008	0.577 ± 0.035
data	5	6	5	16

CDF Run II Preliminary, $L_{int} = 360$ pb^{-1}

170 GeV	ee	$e\mu$	$\mu\mu$	$\ell\ell$
WW	2.708 ± 0.284	4.982 ± 0.523	2.277 ± 0.239	9.967 ± 1.046
WZ	0.105 ± 0.014	0.164 ± 0.021	0.110 ± 0.014	0.379 ± 0.049
ZZ	0.017 ± 0.003	0.008 ± 0.001	0.020 ± 0.004	0.044 ± 0.008
$t\bar{t}$	0.106 ± 0.012	0.195 ± 0.021	0.098 ± 0.011	0.399 ± 0.044
$W\gamma$	0.517 ± 0.038	0.452 ± 0.033	0.000 ± 0.000	0.969 ± 0.071
DY$\ell\ell$	0.315 ± 0.079	0.246 ± 0.062	0.266 ± 0.066	0.827 ± 0.207
fakes	0.572 ± 0.286	0.433 ± 0.217	0.237 ± 0.118	1.242 ± 0.621
total BG	4.339 ± 0.413	6.479 ± 0.571	3.008 ± 0.276	13.826 ± 1.238
HWW	0.130 ± 0.008	0.277 ± 0.017	0.133 ± 0.008	0.541 ± 0.032
data	5	7	6	18

CDF Run II Preliminary, $L_{int} = 360$ pb^{-1}

180 GeV	ee	$e\mu$	$\mu\mu$	$\ell\ell$
WW	2.677 ± 0.281	4.995 ± 0.524	2.220 ± 0.233	9.892 ± 1.039
WZ	0.119 ± 0.015	0.179 ± 0.023	0.136 ± 0.018	0.433 ± 0.056
ZZ	0.026 ± 0.005	0.008 ± 0.001	0.028 ± 0.005	0.062 ± 0.012
$t\bar{t}$	0.124 ± 0.014	0.229 ± 0.025	0.107 ± 0.012	0.459 ± 0.050
$W\gamma$	0.436 ± 0.032	0.380 ± 0.028	0.000 ± 0.000	0.816 ± 0.060
DY$\ell\ell$	0.315 ± 0.079	0.246 ± 0.062	0.266 ± 0.066	0.827 ± 0.207
fakes	0.395 ± 0.197	0.263 ± 0.132	0.227 ± 0.113	0.884 ± 0.442
total BG	4.091 ± 0.354	6.299 ± 0.546	2.983 ± 0.268	13.373 ± 1.152
HWW	0.100 ± 0.006	0.211 ± 0.013	0.098 ± 0.006	0.409 ± 0.025
data	5	8	6	19

CDF Run II Preliminary, $L_{int} = 360$ pb^{-1}

190 GeV	ee	$e\mu$	$\mu\mu$	$\ell\ell$
WW	2.639 ± 0.277	4.804 ± 0.504	2.180 ± 0.229	9.623 ± 1.010
WZ	0.193 ± 0.025	0.176 ± 0.023	0.208 ± 0.027	0.577 ± 0.075
ZZ	0.073 ± 0.014	0.008 ± 0.002	0.058 ± 0.011	0.139 ± 0.026
$t\bar{t}$	0.144 ± 0.016	0.247 ± 0.027	0.127 ± 0.014	0.518 ± 0.057
$W\gamma$	0.436 ± 0.032	0.218 ± 0.016	0.000 ± 0.000	0.654 ± 0.048
DY$\ell\ell$	0.386 ± 0.097	0.263 ± 0.066	0.193 ± 0.048	0.843 ± 0.211
fakes	0.312 ± 0.156	0.261 ± 0.130	0.227 ± 0.113	0.800 ± 0.400
total BG	4.184 ± 0.336	5.977 ± 0.527	2.994 ± 0.262	13.154 ± 1.112
HWW	0.059 ± 0.004	0.123 ± 0.007	0.056 ± 0.003	0.238 ± 0.014
data	5	8	6	19

CDF Run II Preliminary, $L_{int} = 360$ pb^{-1}

200 GeV	ee	$e\mu$	$\mu\mu$	$\ell\ell$
WW	2.621 ± 0.275	4.484 ± 0.471	2.088 ± 0.219	9.193 ± 0.965
WZ	0.372 ± 0.048	0.161 ± 0.021	0.328 ± 0.043	0.860 ± 0.112
ZZ	0.167 ± 0.032	0.007 ± 0.001	0.128 ± 0.024	0.302 ± 0.057
$t\bar{t}$	0.151 ± 0.017	0.275 ± 0.030	0.150 ± 0.016	0.576 ± 0.063
$W\gamma$	0.259 ± 0.019	0.218 ± 0.016	0.000 ± 0.000	0.477 ± 0.035
DY$\ell\ell$	0.305 ± 0.076	0.263 ± 0.066	0.390 ± 0.097	0.958 ± 0.239
fakes	0.252 ± 0.126	0.253 ± 0.127	0.217 ± 0.108	0.722 ± 0.361
total BG	4.128 ± 0.318	5.662 ± 0.494	3.299 ± 0.268	13.089 ± 1.068
HWW	0.053 ± 0.003	0.110 ± 0.007	0.051 ± 0.003	0.214 ± 0.013
data	5	6	6	17

CDF Run II Preliminary, $L_{int} = 360$ pb^{-1}

upper limit on $\sigma\cdot$BR$(gg \to H \to WW)$ as function of the Higgs mass

M_H (GeV)	110	120	130	140	150	160	170	180	190	200
expected (pb)	8.9	6.9	5.7	4.8	4.3	3.5	3.3	3.4	4.3	3.6
observed (pb)	8.3	4.5	4.4	4.6	3.5	3.2	3.4	4.3	6.4	4.6