
First
Measurement
Evidence
Observation
ATLAS
CMS
LEP
Tevatron
Inclusive
OPAL σ [1]
161 GeV
9.89 pb−1
CDF σ [3]
1.96 TeV
184 pb−1
DØ σ [2]
1.96 TeV
224 pb−1 to 252 pb−1
σ [5]
7 TeV
1.02 fb−1
σ [4]
7 TeV
36 pb−1
σ [7]
8 TeV
20.3 fb−1
σ [6]
8 TeV
19.4 fb−1
σ [8]
13 TeV
35.9 fb−1
σ [9]
13.6 TeV
34.8 fb−1
σ [10]
13 TeV
140 fb−1
W+W−
CDF σ [11]
1.96 TeV
1.1 fb−1
DØ σ [12]
1.96 TeV
1 fb−1
σ [16, 17]
7, 8, and 13 TeV
4.9, 19.6, and 2.3 fb−1
σ [13]
7 TeV
1.02 fb−1
σ [14]
8 TeV
20.3 fb−1
σ [15]
13 TeV
3.2 fb−1
f0W/Z [19]
13 TeV
36.1 fb−1
σ [18]
13 TeV
35.9 fb−1
f0W/Z [20]
13 TeV
137 fb−1
RAZ [22]
13 TeV
140 fb−1
f00 [21]
13 TeV
139 fb−1
σ [24]
13 TeV
140 fb−1
σ [23]
13.6 TeV
34.7 fb−1
W±Z
ALEPH σ [25]
182.7 and 188.6 GeV
56.81 and 174.21 pb−1
CDF σ [26]
1.96 TeV
1.9 fb−1
DØ σ [27]
1.96 TeV
2.7 fb−1
σ [28]
7 TeV
5.0 fb−1
σ [29]
7 TeV
4.6 fb−1
σ [30]
8 TeV
19.6 fb−1
σ [31]
13 TeV
3.2 fb−1
σ [32]
8 TeV
20.3 fb−1
σ [33]
13 TeV
35.9 fb−1
σ [34]
13 TeV
137 fb−1
σ [35]
13 TeV
139 fb−1
f00 [36]
13 TeV
139 fb−1
σ [37]
13.6 TeV
29 fb−1
ZZ
1996
2000
2004
2008
2012
2016
2020
2024