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Fermiophobic Higgs Model at 7TeV

- Fermiophobic model with SM-like couplings HVV for gauge bosons and Yukawa-couplings off.
- The Higgs decay branching ratios are calculated with HDECAY ver. 4.00 with the same input paramters for SM Higgs BR calculations.
- For Higgs production cross sections at 7TeV, VBF, WH and ZH NNLO cross sections can be used.
- Electroweak radiative corrections in the fermiophobic model are not known, thus it is recommended to assign +5% systematic uncertainties, to be added in linear to QCD scale and PDF+_s uncertainties, i.e. +5% for VBF and WH/ZH processes.

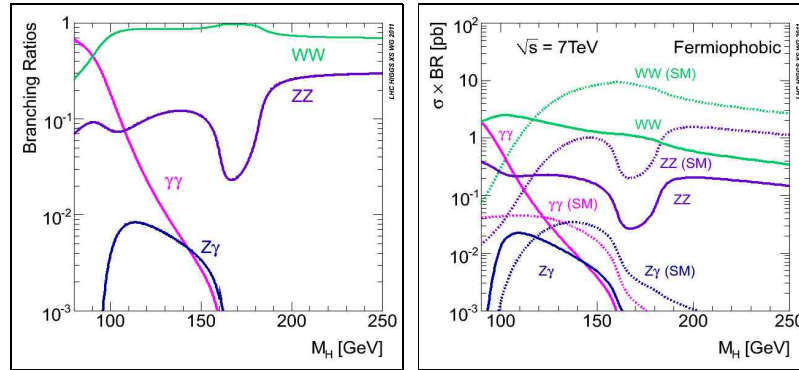


Figure 1: Higgs boson decay branching ratio and production cross section at 7TeV in the fermiophobic Higgs model (calculated with HDECAY).

Higgs Branching Ratios

The entries are:

- Higgs mass (in GeV)
- The braching fractions are calculated with HDECAY 4.00 and total decay width in GeV.
- Excel files with numbers : XLSX file

MH	H gg	H	H Z	H WW	H ZZ	H
[GeV]						[GeV]
90.0	0.00E+00	4.59E-01	0.00E+00	4.49E-01	9.19E-02	1.00E-05
95.0	0.00E+00	3.10E-01	6.69E-04	6.03E-01	8.66E-02	1.78E-05
100.0	0.00E+00	1.82E-01	3.84E-03	7.38E-01	7.61E-02	3.61E-05
105.0	0.00E+00	1.03E-01	6.75E-03	8.17E-01	7.32E-02	7.59E-05
110.0	0.00E+00	5.95E-02	8.09E-03	8.54E-01	7.87E-02	1.55E-04
110.5	0.00E+00	5.65E-02	8.15E-03	8.56E-01	7.96E-02	1.66E-04
111.0	0.00E+00	5.37E-02	8.20E-03	8.58E-01	8.05E-02	1.78E-04
111.5	0.00E+00	5.10E-02	8.24E-03	8.59E-01	8.14E-02	1.90E-04
112.0	0.00E+00	4.85E-02	8.27E-03	8.61E-01	8.24E-02	2.03E-04
112.5	0.00E+00	4.61E-02	8.29E-03	8.62E-01	8.34E-02	2.17E-04
113.0	0.00E+00	4.39E-02	8.31E-03	8.64E-01	8.44E-02	2.32E-04
113.5	0.00E+00	4.18E-02	8.31E-03	8.65E-01	8.54E-02	2.48E-04
114.0	0.00E+00	3.98E-02	8.31E-03	8.66E-01	8.64E-02	2.64E-04
114.5	0.00E+00	3.79E-02	8.30E-03	8.66E-01	8.75E-02	2.82E-04
115.0	0.00E+00	3.62E-02	8.28E-03	8.67E-01	8.85E-02	3.01E-04
115.5	0.00E+00	3.45E-02	8.26E-03	8.68E-01	8.96E-02	3.20E-04
116.0	0.00E+00	3.29E-02	8.23E-03	8.68E-01	9.07E-02	3.41E-04

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116.5	0.00E+00	3.14E-02	8.20E-03	8.69E-01	9.17E-02	3.63E-04
117.0	0.00E+00	3.00E-02	8.16E-03	8.69E-01	9.28E-02	3.86E-04
117.5	0.00E+00	2.87E-02	8.12E-03	8.69E-01	9.39E-02	4.10E-04
118.0	0.00E+00	2.75E-02	8.08E-03	8.70E-01	9.49E-02	4.36E-04
118.5	0.00E+00	2.63E-02	8.03E-03	8.70E-01	9.60E-02	4.63E-04
119.0	0.00E+00	2.52E-02	7.98E-03	8.70E-01	9.71E-02	4.92E-04
119.5	0.00E+00	2.41E-02	7.92E-03	8.70E-01	9.81E-02	5.22E-04
120.0	0.00E+00	2.31E-02	7.87E-03	8.70E-01	9.91E-02	5.53E-04
120.5	0.00E+00	2.21E-02	7.81E-03	8.70E-01	1.00E-01	5.86E-04
121.0	0.00E+00	2.12E-02	7.75E-03	8.70E-01	1.01E-01	6.21E-04
121.5	0.00E+00	2.03E-02	7.68E-03	8.70E-01	1.02E-01	6.58E-04
122.0	0.00E+00	1.95E-02	7.62E-03	8.70E-01	1.03E-01	6.97E-04
122.5	0.00E+00	1.87E-02	7.55E-03	8.70E-01	1.04E-01	7.38E-04
123.0	0.00E+00	1.80E-02	7.48E-03	8.70E-01	1.05E-01	7.80E-04
123.5	0.00E+00	1.73E-02	7.41E-03	8.69E-01	1.06E-01	8.25E-04
124.0	0.00E+00	1.66E-02	7.34E-03	8.69E-01	1.07E-01	8.73E-04
124.5	0.00E+00	1.60E-02	7.27E-03	8.69E-01	1.08E-01	9.22E-04
125.0	0.00E+00	1.54E-02	7.19E-03	8.69E-01	1.09E-01	9.74E-04
125.5	0.00E+00	1.48E-02	7.12E-03	8.69E-01	1.09E-01	1.03E-03
126.0	0.00E+00	1.42E-02	7.04E-03	8.69E-01	1.10E-01	1.09E-03
126.5	0.00E+00	1.37E-02	6.97E-03	8.68E-01	1.11E-01	1.15E-03
127.0	0.00E+00	1.32E-02	6.89E-03	8.68E-01	1.12E-01	1.21E-03
127.5	0.00E+00	1.27E-02	6.82E-03	8.68E-01	1.13E-01	1.28E-03
128.0	0.00E+00	1.23E-02	6.74E-03	8.68E-01	1.13E-01	1.35E-03
128.5	0.00E+00	1.18E-02	6.66E-03	8.68E-01	1.14E-01	1.42E-03
129.0	0.00E+00	1.14E-02	6.59E-03	8.68E-01	1.15E-01	1.49E-03
129.5	0.00E+00	1.10E-02	6.51E-03	8.67E-01	1.15E-01	1.57E-03
130.0	0.00E+00	1.06E-02	6.43E-03	8.67E-01	1.16E-01	1.66E-03
130.5	0.00E+00	1.02E-02	6.35E-03	8.67E-01	1.16E-01	1.75E-03
131.0	0.00E+00	9.88E-03	6.28E-03	8.67E-01	1.17E-01	1.84E-03
131.5	0.00E+00	9.54E-03	6.20E-03	8.67E-01	1.17E-01	1.94E-03
132.0	0.00E+00	9.21E-03	6.12E-03	8.67E-01	1.18E-01	2.04E-03
132.5	0.00E+00	8.90E-03	6.04E-03	8.67E-01	1.18E-01	2.14E-03
133.0	0.00E+00	8.60E-03	5.96E-03	8.67E-01	1.19E-01	2.25E-03
133.5	0.00E+00	8.31E-03	5.89E-03	8.67E-01	1.19E-01	2.37E-03
134.0	0.00E+00	8.03E-03	5.81E-03	8.67E-01	1.20E-01	2.49E-03
134.5	0.00E+00	7.76E-03	5.73E-03	8.67E-01	1.20E-01	2.62E-03
135.0	0.00E+00	7.50E-03	5.66E-03	8.67E-01	1.20E-01	2.76E-03
135.5	0.00E+00	7.25E-03	5.58E-03	8.67E-01	1.20E-01	2.90E-03
136.0	0.00E+00	7.01E-03	5.50E-03	8.67E-01	1.21E-01	3.05E-03
136.5	0.00E+00	6.78E-03	5.43E-03	8.67E-01	1.21E-01	3.20E-03
137.0	0.00E+00	6.56E-03	5.35E-03	8.67E-01	1.21E-01	3.37E-03
137.5	0.00E+00	6.34E-03	5.27E-03	8.67E-01	1.21E-01	3.54E-03
138.0	0.00E+00	6.14E-03	5.20E-03	8.68E-01	1.21E-01	3.72E-03
138.5	0.00E+00	5.94E-03	5.12E-03	8.68E-01	1.21E-01	3.91E-03
139.0	0.00E+00	5.74E-03	5.05E-03	8.68E-01	1.21E-01	4.11E-03
139.5	0.00E+00	5.56E-03	4.97E-03	8.68E-01	1.21E-01	4.32E-03
140.0	0.00E+00	5.38E-03	4.90E-03	8.69E-01	1.21E-01	4.54E-03
141.0	0.00E+00	5.03E-03	4.75E-03	8.70E-01	1.21E-01	5.02E-03
142.0	0.00E+00	4.71E-03	4.60E-03	8.71E-01	1.20E-01	5.55E-03

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143.0	0.00E+00	4.41E-03	4.45E-03	8.72E-01	1.20E-01	6.14E-03
144.0	0.00E+00	4.12E-03	4.30E-03	8.73E-01	1.19E-01	6.80E-03
145.0	0.00E+00	3.86E-03	4.14E-03	8.75E-01	1.17E-01	7.54E-03
146.0	0.00E+00	3.60E-03	3.99E-03	8.77E-01	1.16E-01	8.37E-03
147.0	0.00E+00	3.36E-03	3.84E-03	8.79E-01	1.14E-01	9.31E-03
148.0	0.00E+00	3.13E-03	3.69E-03	8.81E-01	1.12E-01	1.04E-02
149.0	0.00E+00	2.91E-03	3.53E-03	8.84E-01	1.10E-01	1.16E-02
150.0	0.00E+00	2.70E-03	3.37E-03	8.87E-01	1.07E-01	1.30E-02
151.0	0.00E+00	2.49E-03	3.21E-03	8.90E-01	1.04E-01	1.47E-02
152.0	0.00E+00	2.30E-03	3.05E-03	8.94E-01	1.01E-01	1.66E-02
153.0	0.00E+00	2.11E-03	2.87E-03	8.99E-01	9.65E-02	1.89E-02
154.0	0.00E+00	1.92E-03	2.69E-03	9.04E-01	9.18E-02	2.17E-02
155.0	0.00E+00	1.73E-03	2.51E-03	9.09E-01	8.64E-02	2.52E-02
156.0	0.00E+00	1.55E-03	2.31E-03	9.16E-01	8.02E-02	2.96E-02
157.0	0.00E+00	1.36E-03	2.09E-03	9.24E-01	7.30E-02	3.55E-02
158.0	0.00E+00	1.18E-03	1.86E-03	9.32E-01	6.48E-02	4.37E-02
159.0	0.00E+00	9.91E-04	1.62E-03	9.42E-01	5.55E-02	5.57E-02
160.0	0.00E+00	8.17E-04	1.39E-03	9.52E-01	4.57E-02	7.40E-02
162.0	0.00E+00	5.42E-04	9.95E-04	9.68E-01	3.05E-02	1.33E-01
164.0	0.00E+00	3.74E-04	7.09E-04	9.74E-01	2.47E-02	1.97E-01
166.0	0.00E+00	2.98E-04	5.79E-04	9.76E-01	2.31E-02	2.54E-01
168.0	0.00E+00	2.53E-04	5.06E-04	9.76E-01	2.33E-02	3.06E-01
170.0	0.00E+00	2.24E-04	4.58E-04	9.75E-01	2.47E-02	3.55E-01
172.0	0.00E+00	2.02E-04	4.23E-04	9.72E-01	2.71E-02	4.02E-01
174.0	0.00E+00	1.85E-04	3.96E-04	9.69E-01	3.09E-02	4.48E-01
176.0	0.00E+00	1.71E-04	3.74E-04	9.63E-01	3.66E-02	4.94E-01
178.0	0.00E+00	1.59E-04	3.54E-04	9.54E-01	4.57E-02	5.43E-01
180.0	0.00E+00	1.47E-04	3.34E-04	9.38E-01	6.17E-02	5.97E-01
182.0	0.00E+00	1.35E-04	3.11E-04	9.08E-01	9.20E-02	6.63E-01
184.0	0.00E+00	1.22E-04	2.87E-04	8.66E-01	1.34E-01	7.45E-01
186.0	0.00E+00	1.12E-04	2.67E-04	8.31E-01	1.69E-01	8.28E-01
188.0	0.00E+00	1.04E-04	2.51E-04	8.06E-01	1.94E-01	9.08E-01
190.0	0.00E+00	9.71E-05	2.38E-04	7.88E-01	2.12E-01	9.85E-01
192.0	0.00E+00	9.15E-05	2.27E-04	7.74E-01	2.26E-01	1.06E+00
194.0	0.00E+00	8.67E-05	2.18E-04	7.63E-01	2.37E-01	1.14E+00
196.0	0.00E+00	8.25E-05	2.10E-04	7.55E-01	2.45E-01	1.21E+00
198.0	0.00E+00	7.87E-05	2.03E-04	7.48E-01	2.52E-01	1.29E+00
200.0	0.00E+00	7.53E-05	1.96E-04	7.42E-01	2.58E-01	1.37E+00
202.0	0.00E+00	7.22E-05	1.90E-04	7.37E-01	2.62E-01	1.44E+00
204.0	0.00E+00	6.93E-05	1.84E-04	7.33E-01	2.66E-01	1.52E+00
206.0	0.00E+00	6.66E-05	1.79E-04	7.30E-01	2.70E-01	1.61E+00
208.0	0.00E+00	6.41E-05	1.74E-04	7.27E-01	2.73E-01	1.69E+00
210.0	0.00E+00	6.18E-05	1.69E-04	7.24E-01	2.76E-01	1.77E+00
212.0	0.00E+00	5.96E-05	1.65E-04	7.22E-01	2.78E-01	1.86E+00
214.0	0.00E+00	5.76E-05	1.61E-04	7.20E-01	2.80E-01	1.95E+00
216.0	0.00E+00	5.56E-05	1.56E-04	7.18E-01	2.82E-01	2.04E+00
218.0	0.00E+00	5.38E-05	1.52E-04	7.17E-01	2.83E-01	2.13E+00
220.0	0.00E+00	5.20E-05	1.49E-04	7.15E-01	2.85E-01	2.22E+00
222.0	0.00E+00	5.04E-05	1.45E-04	7.14E-01	2.86E-01	2.32E+00
224.0	0.00E+00	4.88E-05	1.41E-04	7.13E-01	2.87E-01	2.42E+00

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226.0	0.00E+00	4.73E-05	1.38E-04	7.12E-01	2.88E-01	2.52E+00
228.0	0.00E+00	4.59E-05	1.35E-04	7.10E-01	2.89E-01	2.62E+00
230.0	0.00E+00	4.45E-05	1.31E-04	7.09E-01	2.90E-01	2.73E+00
232.0	0.00E+00	4.32E-05	1.28E-04	7.09E-01	2.91E-01	2.84E+00
234.0	0.00E+00	4.19E-05	1.25E-04	7.08E-01	2.92E-01	2.95E+00
236.0	0.00E+00	4.07E-05	1.22E-04	7.07E-01	2.93E-01	3.06E+00
238.0	0.00E+00	3.95E-05	1.20E-04	7.06E-01	2.94E-01	3.18E+00
240.0	0.00E+00	3.84E-05	1.17E-04	7.06E-01	2.94E-01	3.30E+00
242.0	0.00E+00	3.73E-05	1.14E-04	7.05E-01	2.95E-01	3.42E+00
244.0	0.00E+00	3.63E-05	1.12E-04	7.04E-01	2.96E-01	3.54E+00
246.0	0.00E+00	3.53E-05	1.09E-04	7.04E-01	2.96E-01	3.67E+00
248.0	0.00E+00	3.44E-05	1.07E-04	7.03E-01	2.97E-01	3.80E+00
250.0	0.00E+00	3.34E-05	1.04E-04	7.02E-01	2.97E-01	3.93E+00

-- ReiTanaka - 27-Jun-2011

This topic: LHC Physics > LHCHXSWG Fermiophobic 7 TeV

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