# Table of Contents

**CMS Higgs Physics Results**...............................................................................................................................1
   Highlights.........................................................................................................................................................1

**Higgs PAG Summary Plots**...............................................................................................................................2

**Preliminary Results**...........................................................................................................................................3

**Publications**........................................................................................................................................................4

**Past Results**........................................................................................................................................................5
   Past Preliminary Results.................................................................................................................................5
   Preliminary 2011+2012 data for the Fall..............................................................5
   Preliminary 2011+2012 data for SUSY 2013 and shortly after............................5
   Preliminary 2011+2012 data for EPS 2013 and shortly after...............................5
   Preliminary 2011+2012 data for LHCP 2013 and shortly after............................5
   Preliminary 2011+2012 data for Moriond 2013 and shortly after.......................5
   Preliminary 2011+2012 data for HCP 2012 and shortly after............................5
   Preliminary 2011+2012 data for ICHEP 2012 and shortly after.........................6
   Preliminary 2011 data for Moriond 2012 and shortly after...............................6
   Preliminary 2011 data for ATLAS/CMS Jamboree (Dec 13)...............................6
   Preliminary 2011 data for HCP Conference.........................................................7
   Preliminary 2011 data for SUSY11.................................................................7
   Preliminary 2011 data for Lepton-Photon...........................................................7
   Preliminary 2011 data for EPS...........................................................................8
   Preliminary 2010 data for Moriond 2011...........................................................8

**MC Based Analyses**.........................................................................................................................................8
   Recent Projections.................................................................................................................................8
   Pre-Data...........................................................................................................................8

**Publications**.......................................................................................................................................................10
Highlights

Values of the best-fit $\sigma/\sigma_{SM}$ for the combination (solid vertical line) and for subcombinations by analysis tags targeting individual production mechanisms: png

1D test statistics $q(m_H)$ scan vs hypothesized Higgs boson mass $m_H$: png

Likelihood scan versus the $H$ variable: png

Summary of the fits for deviations in the coupling for the generic five-parameter model not effective loop couplings, expressed as function of the particle mass: png
Higgs PAG Summary Plots
Preliminary Results
Publications

Past Results

More... Close

Past Preliminary Results

dataBg1”> Dec-2013 Superseded: SM H -> tautau TWiki, Now submitted

Preliminary 2011+2012 data for the Fall

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
<th>TWiki, PAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov-2013</td>
<td>MSSM H -&gt; tautau</td>
<td></td>
</tr>
<tr>
<td>Oct-2013</td>
<td>Z(bb)H, H -&gt; invisible</td>
<td></td>
</tr>
<tr>
<td>Oct-2013</td>
<td>SM H -&gt; mumu</td>
<td></td>
</tr>
<tr>
<td>Oct-2013</td>
<td>tH Combination</td>
<td></td>
</tr>
</tbody>
</table>

Preliminary 2011+2012 data for SUSY 2013 and shortly after

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
<th>TWiki, PAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep-2013</td>
<td>Full 8 TeV dataset: ttH, H -&gt; multi-leptons</td>
<td></td>
</tr>
<tr>
<td>Aug-2013</td>
<td>Full 8 TeV dataset: VBF H -&gt; invisible</td>
<td></td>
</tr>
<tr>
<td>Aug-2013</td>
<td>Full 7+8 TeV dataset: VBF H -&gt; WW</td>
<td></td>
</tr>
</tbody>
</table>

Preliminary 2011+2012 data for EPS 2013 and shortly after

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
<th>TWiki, PAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul-2013</td>
<td>Full 8 TeV dataset: ttH, H -&gt; bb or tautau</td>
<td></td>
</tr>
<tr>
<td>Jul-2013</td>
<td>Full 8 TeV dataset: H -&gt; ZZ -&gt; 2l2j</td>
<td></td>
</tr>
<tr>
<td>Jul-2013</td>
<td>Full 8 TeV dataset: h -&gt; 2a + X -&gt; 4mu + X</td>
<td></td>
</tr>
<tr>
<td>Jul-2013</td>
<td>Full 7+8 TeV dataset: Z(ll)H, H -&gt; invisible</td>
<td></td>
</tr>
<tr>
<td>Jul-2013</td>
<td>Full 7+8 TeV dataset: VH, H -&gt; WW(2l2nu) + V -&gt; jj</td>
<td></td>
</tr>
<tr>
<td>Jul-2013</td>
<td>Full 7+8 TeV dataset: Higgs properties from H -&gt; gamma gamma</td>
<td></td>
</tr>
</tbody>
</table>

Preliminary 2011+2012 data for LHCP 2013 and shortly after

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
<th>TWiki, PAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>May-2013</td>
<td>Full 8 TeV dataset: VBF H, H -&gt; bb</td>
<td></td>
</tr>
<tr>
<td>May-2013</td>
<td>Full 8 TeV dataset: ttH, H -&gt; gamma gamma</td>
<td></td>
</tr>
<tr>
<td>May-2013</td>
<td>Full 7+8 TeV dataset: VH, H -&gt; bb</td>
<td></td>
</tr>
<tr>
<td>May-2013</td>
<td>Full 8 TeV dataset: H -&gt; WW -&gt; lnuJ</td>
<td></td>
</tr>
<tr>
<td>May-2013</td>
<td>Full 7+8 TeV dataset: H -&gt; ZZ -&gt; 2l2nu</td>
<td></td>
</tr>
</tbody>
</table>

Preliminary 2011+2012 data for Moriond 2013 and shortly after

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
<th>TWiki, PAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr-2013</td>
<td>Up to full 7+8 TeV data: Higgs Combination</td>
<td></td>
</tr>
<tr>
<td>Mar-2013</td>
<td>Full 7+8 TeV dataset: H -&gt; gamma gamma</td>
<td></td>
</tr>
<tr>
<td>Mar-2013</td>
<td>Full 7+8 TeV dataset: H -&gt; ZZ -&gt; 4l</td>
<td></td>
</tr>
<tr>
<td>Mar-2013</td>
<td>Full 7+8 TeV dataset: H -&gt; WW -&gt; 2l2nu</td>
<td></td>
</tr>
<tr>
<td>Mar-2013</td>
<td>Full 7+8 TeV dataset: H -&gt; tau tau</td>
<td></td>
</tr>
<tr>
<td>Mar-2013</td>
<td>Full 7+8 TeV dataset: H -&gt; Z gamma</td>
<td></td>
</tr>
<tr>
<td>Mar-2013</td>
<td>Full 7+8 TeV dataset: H -&gt; WWW -&gt; 3l3nu</td>
<td></td>
</tr>
<tr>
<td>Mar-2013</td>
<td>Full 7+8 TeV dataset: VH -&gt; tau tau</td>
<td></td>
</tr>
</tbody>
</table>

--->
## Preliminary 2011+2012 data for HCP 2012 and shortly after

<table>
<thead>
<tr>
<th>Date</th>
<th>Analysis</th>
<th>TWiki, PAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov-2012</td>
<td>2011/2 (HCP) data: H -&gt; ZZ -&gt; 4l</td>
<td></td>
</tr>
<tr>
<td>Nov-2012</td>
<td>2011/2 (HCP) data: H -&gt; WW -&gt; 2l2nu</td>
<td></td>
</tr>
<tr>
<td>Nov-2012</td>
<td>2011/2 (HCP) data: H -&gt; tau tau</td>
<td></td>
</tr>
<tr>
<td>Nov-2012</td>
<td>2011/2 (HCP) data: H -&gt; tau tau (MSSM)</td>
<td></td>
</tr>
<tr>
<td>Nov-2012</td>
<td>2011/2 (HCP) data: VH -&gt; V tau tau</td>
<td></td>
</tr>
<tr>
<td>Nov-2012</td>
<td>2011/2 (HCP) data: VH -&gt; V bb</td>
<td></td>
</tr>
<tr>
<td>Nov-2012</td>
<td>2011/2 (HCP) data: H -&gt; WW -&gt; lnujj</td>
<td></td>
</tr>
<tr>
<td>Nov-2012</td>
<td>2011/2 (ICHEP) data: WH -&gt; 3l3nu</td>
<td></td>
</tr>
<tr>
<td>Nov-2012</td>
<td>2011/2 (HCP) data: Combination</td>
<td></td>
</tr>
<tr>
<td>Nov-2012</td>
<td>2011/2 (ICHEP) data: bbH-&gt;bbbb (MSSM) sl+h</td>
<td></td>
</tr>
<tr>
<td>Dec-2012</td>
<td>2011/2 (ICHEP) data: H -&gt; Z gamma</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Full 7 TeV dataset: H+ -&gt; tau nu</td>
<td></td>
</tr>
</tbody>
</table>

## Preliminary 2011+2012 data for ICHEP 2012 and shortly after

<table>
<thead>
<tr>
<th>Date</th>
<th>Analysis</th>
<th>TWiki, PAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>May-2012</td>
<td>2011 data: phi -&gt; mu mu</td>
<td></td>
</tr>
<tr>
<td>Jul-2012</td>
<td>2011/2 data: H -&gt; gamma gamma</td>
<td></td>
</tr>
<tr>
<td>Jul-2012</td>
<td>2011/2 data: H -&gt; ZZ -&gt; 4l*</td>
<td></td>
</tr>
<tr>
<td>Jul-2012</td>
<td>2011/2 data: H -&gt; WW -&gt; 2l2nu</td>
<td></td>
</tr>
<tr>
<td>Jul-2012</td>
<td>2011/2 data: H -&gt; WW -&gt; 2l2nu, shape</td>
<td></td>
</tr>
<tr>
<td>Jul-2012</td>
<td>2011/2 data: H -&gt; tau tau</td>
<td></td>
</tr>
<tr>
<td>Jul-2012</td>
<td>2011/2 data: VH -&gt; V bb</td>
<td></td>
</tr>
<tr>
<td>Jul-2012</td>
<td>2011/2 data: H -&gt; ZZ -&gt; 2l2nu</td>
<td></td>
</tr>
<tr>
<td>Jul-2012</td>
<td>2011/2 data: H -&gt; WW -&gt; lnujj</td>
<td></td>
</tr>
<tr>
<td>Jul-2012</td>
<td>2011 data: ttH -&gt; tt bb</td>
<td></td>
</tr>
<tr>
<td>Jul-2012</td>
<td>2011 data: Observation: ~125 GeV</td>
<td></td>
</tr>
<tr>
<td>Jul-2012</td>
<td>2011/2 data: H -&gt; gamma gamma, FP</td>
<td></td>
</tr>
<tr>
<td>Jul-2011</td>
<td>2011 data: bbH all hadronic</td>
<td></td>
</tr>
<tr>
<td>Jul-2012</td>
<td>2011 data: bbH semileptonic</td>
<td></td>
</tr>
</tbody>
</table>

## Preliminary 2011 data for Moriond 2012 and shortly after

<table>
<thead>
<tr>
<th>Date</th>
<th>Analysis</th>
<th>TWiki, PAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>May-2012</td>
<td>2011 data: phi -&gt; mu mu</td>
<td></td>
</tr>
<tr>
<td>Feb-2012</td>
<td>2011 data: H -&gt; WW -&gt; lnujj</td>
<td></td>
</tr>
<tr>
<td>Feb-2012</td>
<td>2011 data: WH -&gt; WWW</td>
<td></td>
</tr>
<tr>
<td>Feb-2012</td>
<td>2011 data: WH -&gt; W tau tau</td>
<td></td>
</tr>
<tr>
<td>Feb-2012</td>
<td>2011 data: VH -&gt; jj WW -&gt; jj 2l2nu</td>
<td></td>
</tr>
<tr>
<td>Feb-2012</td>
<td>2011 data: H -&gt; tau(mu) tau(mu)</td>
<td></td>
</tr>
<tr>
<td>Feb-2012</td>
<td>2011 data: H -&gt; gamma gamma, FP</td>
<td></td>
</tr>
<tr>
<td>Feb-2012</td>
<td>2011 data: a0 -&gt; mu+mu-</td>
<td></td>
</tr>
<tr>
<td>Feb-2012</td>
<td>2011 data: H++ -&gt; l+l+</td>
<td></td>
</tr>
<tr>
<td>Feb-2012</td>
<td>2011 data: SM/SM4/FP combination</td>
<td></td>
</tr>
</tbody>
</table>

## Preliminary 2011 data for ATLAS/CMS Jamboree (Dec 13)

<table>
<thead>
<tr>
<th>Date</th>
<th>Analysis</th>
<th>TWiki, PAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>08-Dec-2011</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Preliminary 2011+2012 data for HCP 2012 and shortly after 6
### Preliminary 2011 data for HCP Conference

<table>
<thead>
<tr>
<th>Date</th>
<th>Analysis</th>
<th>Main Results</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-Nov-2011</td>
<td>LHC Higgs Combination</td>
<td>ATLAS &amp; CMS Higgs Combination</td>
<td>PAS</td>
</tr>
</tbody>
</table>

### Preliminary 2011 data for SUSY11

<table>
<thead>
<tr>
<th>Date</th>
<th>Analysis</th>
<th>Main Results</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-Aug-2011</td>
<td>2011 data: H -&gt; tau tau</td>
<td>Limits on SUSY/SM Higgs decaying to a tau pair</td>
<td>TWiki, PAS</td>
</tr>
</tbody>
</table>

### Preliminary 2011 data for Lepton-Photon

<table>
<thead>
<tr>
<th>Date</th>
<th>Analysis</th>
<th>Main Results</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-Aug-2011</td>
<td>2011 data: H -&gt; WW -&gt; 212nu</td>
<td>Limits on Higgs decaying through WW to 2 charged lepton and two neutrinos</td>
<td>TWiki, PAS</td>
</tr>
<tr>
<td>18-Aug-2011</td>
<td>2011 data: H -&gt; ZZ -&gt; 4l</td>
<td>Limits on Higgs decaying through ZZ to 4 charged leptons (ee/mm,ee/mm)</td>
<td>TWiki, PAS</td>
</tr>
<tr>
<td>15-Aug-2011</td>
<td>2011 data: H -&gt; ZZ -&gt; 212tau</td>
<td>Limits on Higgs decaying through ZZ to 4 charged leptons (ee/mm,ee/mm)</td>
<td>TWiki, PAS</td>
</tr>
<tr>
<td>17-Aug-2011</td>
<td>2011 data: H -&gt; ZZ -&gt; 212nu</td>
<td>Limits on Higgs decaying through ZZ to 2 charged lepton and two neutrinos</td>
<td>TWiki, PAS</td>
</tr>
<tr>
<td>17-Aug-2011</td>
<td>2011 data: H -&gt; ZZ -&gt; 212jets</td>
<td>Limits on Higgs decaying through ZZ to 2 charged lepton and two jets</td>
<td>TWiki, PAS</td>
</tr>
<tr>
<td>18-Aug-2011</td>
<td>2011 data: H -&gt; gamma gamma</td>
<td>Limits on Higgs decaying to gamma gamma</td>
<td>TWiki, PAS</td>
</tr>
<tr>
<td>17-Aug-2011</td>
<td>2011 data: VH -&gt; Vbb</td>
<td>Limits on Associated Higgs Production (ZH-&gt;ee/mm/nn,bb,WH-&gt;en/mn,bb)</td>
<td>TWiki, PAS</td>
</tr>
<tr>
<td>19-Aug-2011</td>
<td>2011 data: Higgs Combination</td>
<td>Combined Higgs Limits</td>
<td>TWiki, PAS</td>
</tr>
</tbody>
</table>
### Preliminary 2011 data for EPS

<table>
<thead>
<tr>
<th>Date</th>
<th>Analysis</th>
<th>Main Results</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-Jul-2011</td>
<td><strong>2011 data: H -&gt; WW -&gt; 2l2nu</strong></td>
<td>Limits on Higgs decaying through WW to 2 charged lepton and two neutrinos</td>
<td>TWiki, PAS</td>
</tr>
<tr>
<td>13-Jul-2011</td>
<td>2011 data: H -&gt; ZZ -&gt; 4l</td>
<td>Limits on Higgs decaying through ZZ to 4 charged leptons</td>
<td>TWiki, PAS</td>
</tr>
<tr>
<td>13-Jul-2011</td>
<td>2011 data: H -&gt; ZZ -&gt; 2l2nu</td>
<td>Limits on Higgs decaying through ZZ to 2 charged lepton and two neutrinos</td>
<td>TWiki, PAS</td>
</tr>
<tr>
<td>13-Jul-2011</td>
<td>2011 data: H -&gt; ZZ -&gt; 2l2jets</td>
<td>Limits on Higgs decaying through ZZ to 2 charged lepton and two jets</td>
<td>TWiki, PAS</td>
</tr>
<tr>
<td>14-Jul-2011</td>
<td>2011 data: H++ -&gt; l+l+</td>
<td>Limits on Doubly Charged Higgs decaying two same charged leptons</td>
<td>TWiki, PAS</td>
</tr>
<tr>
<td>16-Jul-2011</td>
<td>2011 data: H+ -&gt; tau nu</td>
<td>Limits on Charged Higgs in top decays</td>
<td>TWiki, PAS</td>
</tr>
<tr>
<td>18-Jul-2011</td>
<td>2011 data: H -&gt; tau tau</td>
<td>Limits on SUSY Higgs decaying to a tau pair</td>
<td>TWiki, PAS</td>
</tr>
<tr>
<td>18-Jul-2011</td>
<td>2011 data: H -&gt; gamma gamma</td>
<td>Limits on Higgs decaying to gamma gamma</td>
<td>TWiki, PAS</td>
</tr>
<tr>
<td>18-Jul-2011</td>
<td><strong>2011 data: Combined Higgs</strong></td>
<td>Combined Higgs Limits</td>
<td>TWiki, PAS</td>
</tr>
</tbody>
</table>

### Preliminary 2010 data for Moriond 2011

<table>
<thead>
<tr>
<th>Date</th>
<th>Analysis</th>
<th>Main Results</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-Mar-2011</td>
<td><strong>2010 data: Charged Higgs</strong></td>
<td>Limits on production of a charged Higgs in top decays</td>
<td>TWiki, PAS</td>
</tr>
<tr>
<td>09-Mar-2011</td>
<td><strong>2010 data: Doubly Charged</strong></td>
<td>Limits on production of a doubly charged Higgs</td>
<td>TWiki, PAS</td>
</tr>
<tr>
<td>04-Mar-2011</td>
<td><strong>2010 data: MSSM</strong></td>
<td>Limits on SUSY Higgs to tau tau production</td>
<td>TWiki, Paper</td>
</tr>
<tr>
<td>09-Feb-2011</td>
<td><strong>2010 data: H W+W-</strong></td>
<td>Measurement of the WW production cross section at 7 TeV, limits on anomalous couplings, first H WW limits for models with four heavy fermion generations</td>
<td>TWiki, Paper</td>
</tr>
</tbody>
</table>

### MC Based Analyses

### Recent Projections

<table>
<thead>
<tr>
<th>Date</th>
<th>Analysis</th>
<th>Main Results</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-Sep-2012</td>
<td><strong>ESG prep: SM Higgs</strong></td>
<td>Projections for the main SM analysis up to 300/fb</td>
<td>TWiki</td>
</tr>
</tbody>
</table>

### Pre-Data

<table>
<thead>
<tr>
<th>Date</th>
<th>Analysis</th>
<th>Main Results</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 Oct 2010</td>
<td><strong>Monte Carlo</strong></td>
<td>Projections are obtained using an expanded list of SM Higgs signatures, namely: H WW 2l2v (+0/1 jets), VBF H WW 2l2v, H ZZ 4l, H ZZ 2l2, H ZZ 2l2b, H ZZ 2l2b, H ZZ 2l2b, H ZZ 2l2b, H ZZ 2l2b, H ZZ 2l2b, VBF H , VBF H , associate production VH V(bb) (highly boosted), associate production ZH Z(WW) (l)(lvjj), associate production WH W(WW) (lv)(lvjj) (same sign</td>
<td>The plots and a brief summary can be found here. They will be soon included in NOTE-2010/008.</td>
</tr>
<tr>
<td>Date</td>
<td>Event Type</td>
<td>Details</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>6 Apr 2010</td>
<td>Monte Carlo</td>
<td>Projected sensitivities for ( \sqrt{s}=7 \text{ TeV} ) and ( L=1 \text{ fb}^{-1} ). Projections are presented for three SM Higgs signatures, ( \mathrm{H} \rightarrow \mathrm{WW} \rightarrow 2\ell 2\nu ), ( \mathrm{H} \rightarrow \mathrm{ZZ} \rightarrow 4\ell ), and their combination, and the MSSM Higgs channel ( \mathrm{pp} \rightarrow \mathrm{bb} \Phi \rightarrow \mathrm{bb}(\tau\tau) ). SM Higgs searches are expected to reach a discovery level sensitivity for ( m_H=160-170 \text{ GeV} ) and an exclusion level sensitivity for ( m_H=145-190 \text{ GeV} ). Higgs boson mass ( m_H&lt;400 \text{ GeV} ) can be excluded in models with four generations of quarks, regardless of how heavy their masses might be. Fermiophobic Higgs can be excluded for ( m_H&lt;110 \text{ GeV} ). The expected discovery/exclusion sensitivities for the neutral MSSM Higgs bosons are given as contours in the ( (m_A, \tan \beta) )-plane. At low ( m_A \sim 90 \text{ GeV} ), the discovery can be possible for ( \tan \beta &gt;20 ) and the exclusion limit is expected to reach down to ( \tan \beta \sim 15 ). NOTE-2010/008. The plots and a brief summary can be found here</td>
<td></td>
</tr>
<tr>
<td>Feb 2009</td>
<td>Monte Carlo</td>
<td>Combination of ( \mathrm{H} \rightarrow \mathrm{WW} ) and ( \mathrm{H} \rightarrow \mathrm{ZZ} \rightarrow 4\ell ) analyses. Impact of the LHC COM energy change from 14 to 10 TeV. Running at 10 TeV requires about 2 times larger integrated luminosity to reach the same sensitivity for SM Higgs. At 10 TeV, an exclusion of the SM Higgs boson with ( m_H=160-170 \text{ GeV} ) would require ~200 ( \text{pb}^{-1} ). Details can be found here</td>
<td></td>
</tr>
<tr>
<td>Jan 2009</td>
<td>Monte Carlo</td>
<td>At 14 TeV and 1 ( \text{fb}^{-1} ), discovery of the SM Higgs boson is out of reach. A 95%CL exclusion is possible in the mass range of about 190-230 GeV. PAS HIG-08/003.</td>
<td></td>
</tr>
<tr>
<td>Jan 2009</td>
<td>Monte Carlo</td>
<td>At 14 TeV and 1 ( \text{fb}^{-1} ), discovery is possible for the SM Higgs boson with ( m_H\sim 160-170 \text{ GeV} ). A 95%CL exclusion is possible in the mass range 140-200 GeV. PAS HIG-08/006.</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>Monte Carlo</td>
<td>At 14 TeV and 1 ( \text{fb}^{-1} ), neither discovery nor 95%CL exclusion of the SM Higgs boson are possible. Exclusion is possible on anomalous x-section ( \sigma/\sigma_{\mathrm{SM}} \sim 10 ) in mass range 115-135 GeV. Data driven techniques for controlling main background components are presented. PAS HIG-08/008 and HIG-08/001.</td>
<td></td>
</tr>
<tr>
<td>2006-2007</td>
<td>Monte Carlo</td>
<td>Large collection of physics potential studies for Standard Model, Higgs, SUSY, and beyond. CMS Physics TDR, vol. II. CMS NOTES related to the Higgs studies presented in the PTDR (and a few analyses approved right after PTDR) can be found here</td>
<td></td>
</tr>
</tbody>
</table>
Publications

- Papers
- Physics Analysis Summaries with collision data
- Physics Analysis Summaries from MC studies