H->bb/cc/gg at 350 GeV

CLICdp WG Analysis Meeting - 25 Feb 2015
Marco Szalay

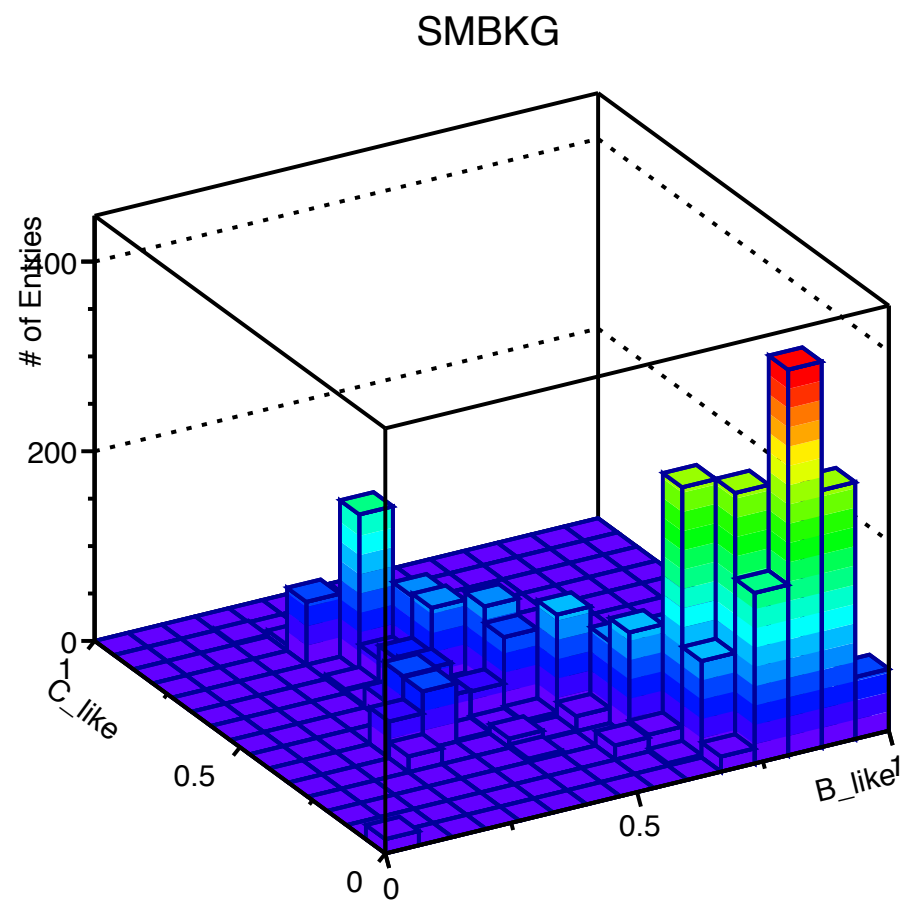Max-Planck-Institut für Physik
(Werner-Heisenberg-Institut)

TUM
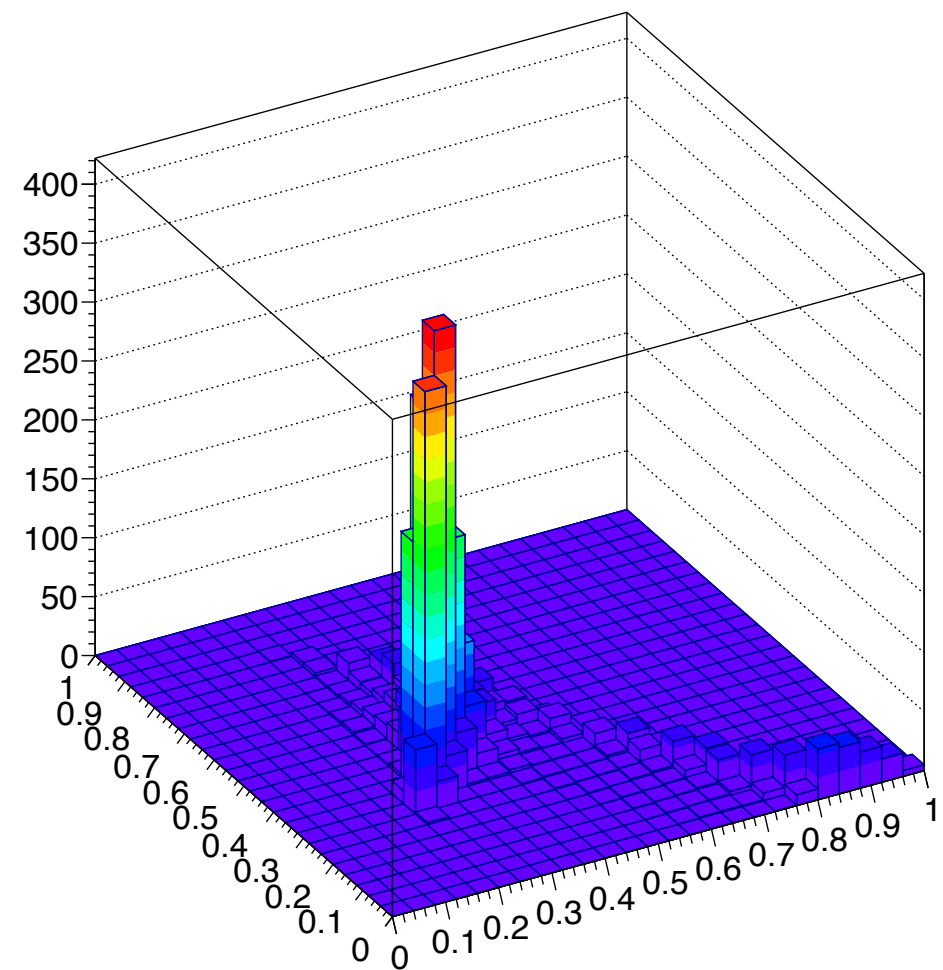ES O
LMU
Excellence Cluster
|Universe

Status of the Analysis

- Statistics in H->gg and H->cc templates fixed thanks to dedicated additional production

- Statistics in SM background template still low, can't be recovered by increasing statistics

  - Use the full statistics without cuts to produce templates

  - Normalize the template to the number of bkg events that pass the cuts

  - Statistical fluctuations should be considerably dumped
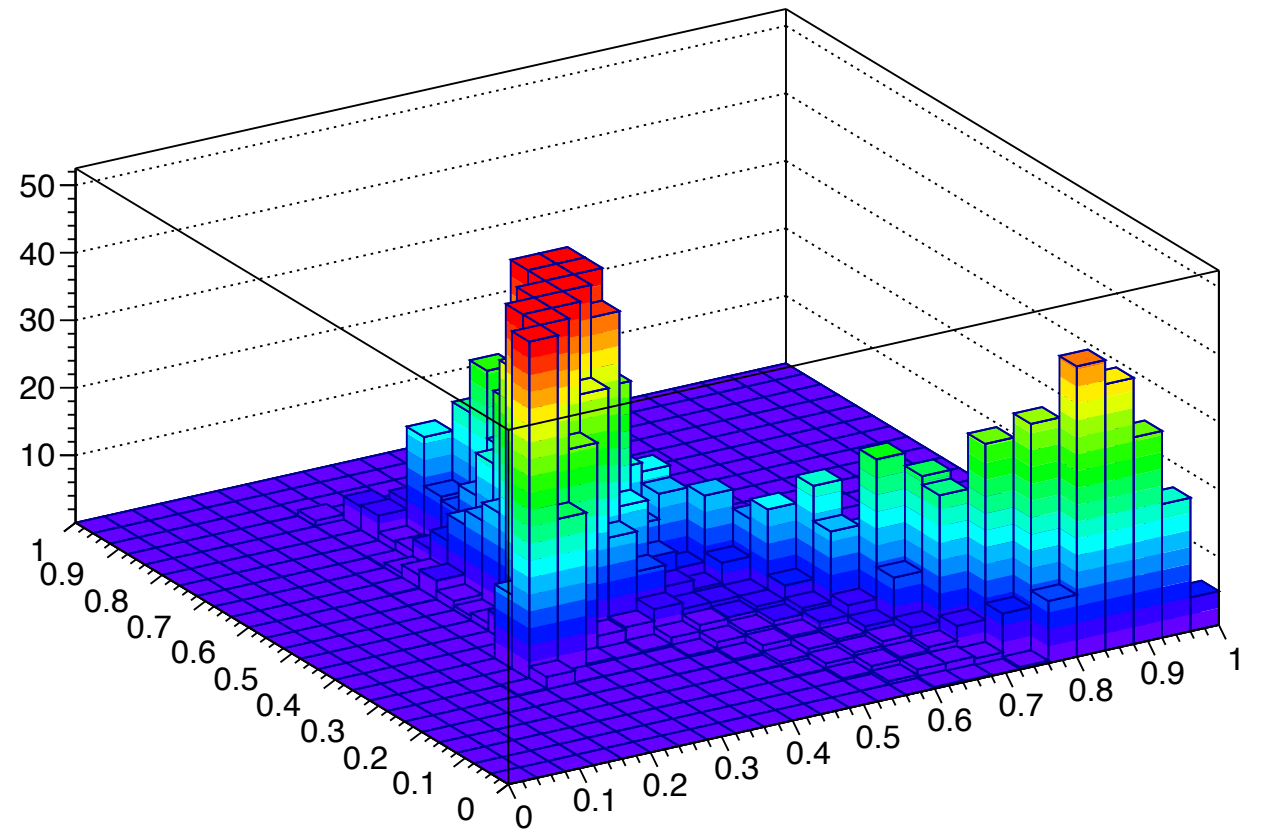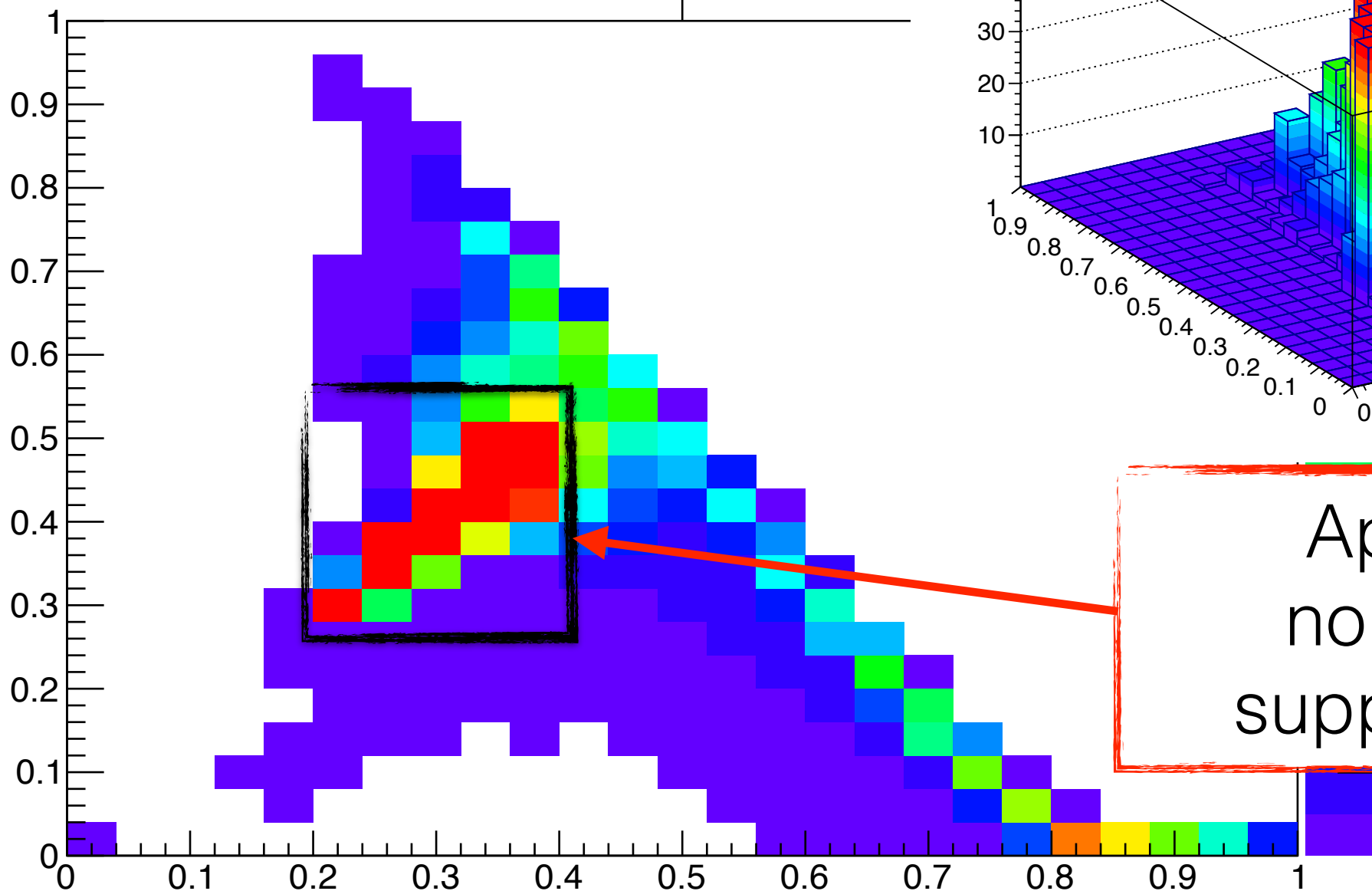
Status of the Analysis

With cuts - low statistics

high statistics - no cuts

Status of the Analysis

high statistics -
no cuts

Apply different normalization to suppress this peak

Status of the Analysis

- In practice the cut is complicated by the vicinity to the signal region of the CC template

- The cut is in a 3D space for the Hνν analysis, so a lot of trial and error involved

- ROOT histogram smoothing does not preserve overall normalization

- 1D fit is almost done