

# Higgs Days at Santander 2017: FAREWELL

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Santander, 09/2017

**Higgs Days at Santander 2017**  
Theory meets Experiment  
18.-22. September

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Logos at the bottom of the poster include: EXCELENCIA SEVERO OQUEJOA, ifl, Instituto de Física de Cantabria, CSIC, UC UNIVERSIDAD DE SANTANDER, and logos for the European Union and the Spanish Government.

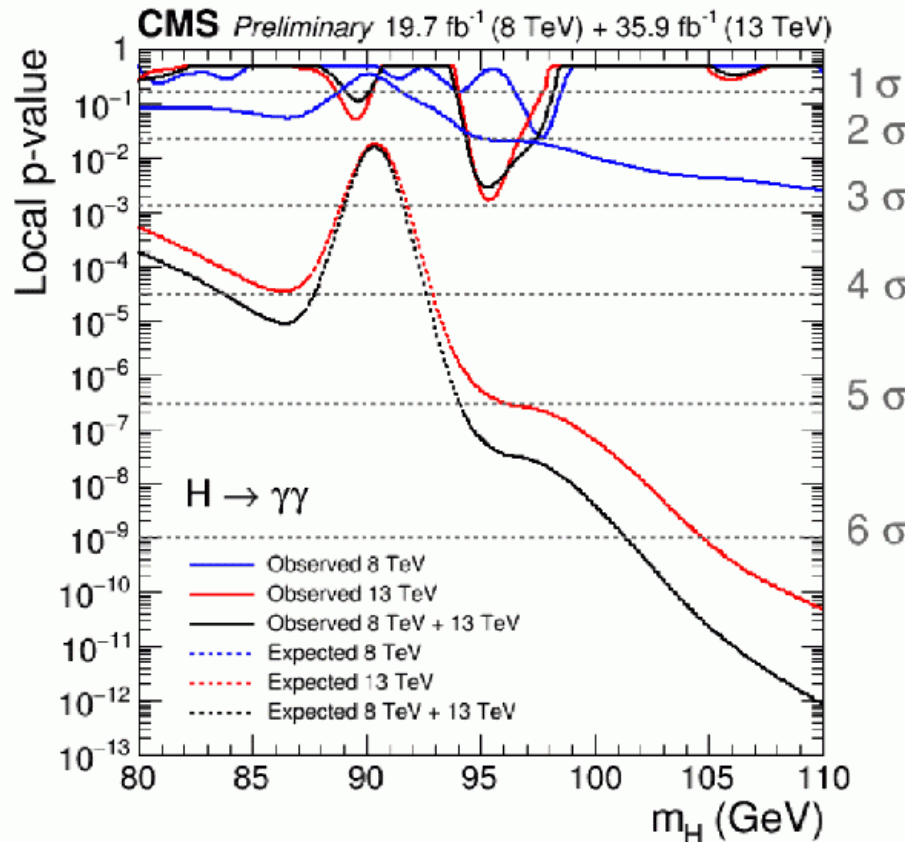
- EFTs are covering all possible New Physics
- SUSY is dead; and the 2HDM too
- Loop Corrections are worthless
- FeynHiggs is superseded
- All  $36 \text{ fb}^{-1}$  results will be out soon

Word of the workshop: **SOON!!**

# Finally a discovery!



## $h \rightarrow \gamma\gamma$ (70-110 GeV) Runs 1+ 2



CMS PAS HIG-17-013

8 TeV: Excess with  $\sim 2.0 \sigma$  local significance at  $m=97.6$  GeV

13 TeV: Excess with  $\sim 2.9 \sigma$  local ( $1.47 \sigma$  global) significance at  $m=95.3$  GeV

8TeV+13 TeV: Excess with  $\sim 2.8 \sigma$  local ( $1.3 \sigma$  global) significance at  $m=95.3$  GeV

More data are required to ascertain the origin of this excess

- Expected and observed local p-values for **8 TeV**, **13 TeV** and their combination

S. Gascon-Shotkin IIDays17, Santander, ES Sept. 22 2017

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## Tilmans' challenge??

## Henning's recommendation for the HDays18:



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**Georg's rec.:** charge everybody 5 Euro extra and buy a screen!

## The HDays18/19 poll:

- 15 for HDays18
- 12 for HDays19
- I was told that voting for HDays19 does not mean that they would not come to the HDays18
- several people made a convincing case that the first break could/should happen only in 2020 ...

I give in ...

## The HDays16 bets





## Three bets in 2015/16, one in 2012:

Bet # 1: Brucino no (Sven) vs. Brucino yes (Andrey/Eilam)

→ HDays17 (two good bottles of wine)

⇒ not decided yet, waiting for more Run II data!

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Bet # 3: Nothing up to 2018 (Pierre) vs. Something up to 2018 (Eilam)

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Unfortunately I am not aware of any new bet ...

## “Higgs Days at Santander 2017”

⇒ First HDays with  $\mathcal{O}(100)$ /fb of data?

Possible dates:  
10.-14.09. 2017  
17.-21.09. 2017

⇒ let me know!

ATLAS/CMS: when do you have your “weeks”?

Feel invited for the HDays18!

