



# HonexComb meeting #2 (Heavy Ion Experimental Combination)

Raphael Granier de Cassagnac, Giulia Manca, Iwona Grabowska-Bold, Alexander Philipp Kalweit

CERN, 25<sup>th</sup> February 2020



# Introduction



- Honexcomb is a platform part of the Strong2020 project born to combine experimental results in the field of Heavy Ion Physics and establish cross-collaboration discussions
- Organised with one responsible per experiment, idea to hire one post-doc per experiment<sup>(\*)</sup>, meant to work together and run the meetings
  - Twiki: <https://twiki.cern.ch/twiki/bin/view/Honexcomb/>
  - Mailing list: [honex-comb@cern.ch](mailto:honex-comb@cern.ch)
  - Meetings last Tuesday of each month, 15h00–17h00, room at CERN booked
    - First meeting last month very interesting !
- *(\*) First post-doc advertisement already out ! CMS position @ LLR <https://labs.inspirehep.net/jobs/1779819>*

# From the last meeting...

- We identified four items to work on:
  - Legacy papers
  - Combinations (especially important when statistical significance low in single experiments)
  - Common observables, or at least common selections
  - Better and common pp references

# From the last meeting...

- We confirmed four items to work on, and added...
    - Legacy papers
    - Combinations (especially important when statistical significance low in single experiments)
      - => Total charm cross section, @next meeting
    - Common observables, or at least common selections
      - => Centrality measurement, @today!
    - Better and common pp references
    - “Tensions” between experiments, to be investigated further (see last slide for references)
      - CMS vs. ATLAS :  $Y(nS)$  production
      - LHCb vs. ALICE :  $\Lambda_c/D^0$  ratio in pPb
      - LHCb vs. CMS :  $X(3872)$  production vs. multiplicity (but large uncertainties)
      - CMS vs. ALICE :  $R_{AA}$  measurement at high  $p_T$
      - ...others ?
    - Preparation of Summary Plots with published results as done in the QWG in the past
    - Other ideas always welcome !
- Will be discussed at [workshop](#) at CERN next week*

# ...to the next meeting

- Tuesday 31<sup>st</sup> March, 15:00 – 17:00
- Room 53/R-044 (CERN) booked if people at CERN
- Volunteers welcome !
- Questions & suggestions always welcome 😊

# References

- *CMS  $\Lambda_c$  vs.  $D^0$  in PbPb* CMS-HIN-18-009 ; CERN-EP-2019-102
- *CMS  $Y(nS)$  in PbPb*
  - [Phys. Lett. B 790 \(2019\) 270](#)
  - [http://cms-results.web.cern.ch/cms-results/public-results/publications/HIN-15-015/index.html#Figure\\_006](http://cms-results.web.cern.ch/cms-results/public-results/publications/HIN-15-015/index.html#Figure_006)
  - <http://alice-publications.web.cern.ch/node/4190>
- *ATLAS  $Y(nS)$  in PbPb*
  - <https://cds.cern.ch/record/2698298>
  - <https://atlas.web.cern.ch/Atlas/GROUPS/PHYSICS/CONFNOTES/ATLAS-CONF-2019-054/>
- *CMS  $X(3872)/\psi(2S)$*  CMS-PAS-HIN-19-005
- *LHCb  $X(3872)/\psi(2S)$  in pp* LHCb-CONF-2019-005,
  - <https://arxiv.org/pdf/2002.01551.pdf>
- *LHCb  $\Lambda_c$  vs.  $D^0$  in pPb*
  - <https://arxiv.org/pdf/1809.01404.pdf>
- Cern Workshop: <https://indico.cern.ch/event/866418/timetable>