LHC EW WG 2: Jets and EW bosons

- Conveners:
  - ATLAS: Ben Nachman, Heberth Torres
  - CMS: Vieri Candelise, Hannes Jung,
  - LHCb: Stephen Farry, Will Barter
  - TH: Marek Schoenherr

  - further reading: WG Twiki

Jets and EW bosons: Proposals for work

- define small projects
  - find people to work on
  - from every experiment/theory we need people to join
  - need names and commitments

- if we do not find people, we have to cancel topic

Jets and EW bosons: Benchmark Comparisons

- need a common theory prescription which is used as benchmark
  - need proper understanding of prediction
    - not only best description of data – need to understand the physics behind
  - need a common effort of theory and experimentalists from all experiments !

  - detailed list of items in Backup
    - need people to work on it :)
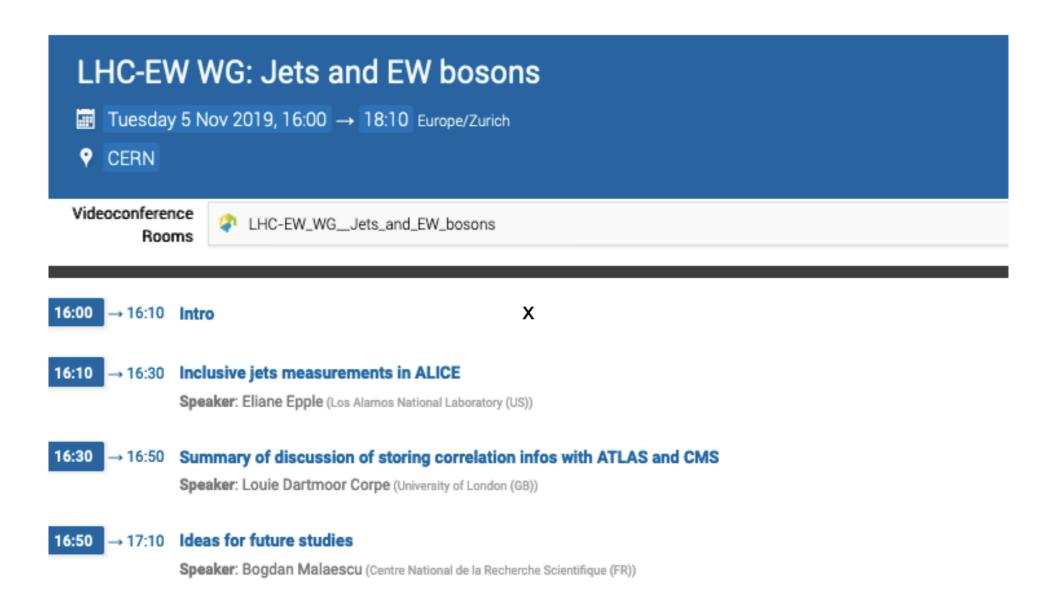
Jets and EW bosons: infos

- Discussion on storing uncertainties (correlation) on HepData is ongoing:
  - Proposal is ready
  - Louie has already scheduled presentations in CMS and LHCb
  - in November collect all comments
    - final Recommendations for December meeting

- LHC tune

- new ideas by Bogdan/Matthias (presentation today)

- Preparation of meeting 17-18 Dec 2019
  - need results :) and speaker

Jets and EW bosons

- Further reading
  - Twiki
  - regular meetings: every second week, Tuesdays 16-18

WG 2: Agenda for today

LHC-EW WG: Jets and EW bosons

📅 Tuesday 5 Nov 2019, 16:00 → 18:10 Europe/Zurich

📍 CERN

Videoconference Rooms — 🌐 LHC-EW_WG__Jets_and_EW_bosons

16:00 → 16:10 **Intro**   X

16:10 → 16:30 **Inclusive jets measurements in ALICE**

Speaker: Eliane Epple (Los Alamos National Laboratory (US))

16:30 → 16:50 **Summary of discussion of storing correlation infos with ATLAS and CMS**

Speaker: Louie Dartmoor Corpe (University of London (GB))

16:50 → 17:10 **Ideas for future studies**

Speaker: Bogdan Malaescu (Centre National de la Recherche Scientifique (FR))

Appendix

Jets and EW bosons: Benchmark Comparisons (1)

- use NNPDF3.1 pdf, CUETp8M1 tune (or something different ?)
- Jets, W+jets, Z+jets
  - POWHEG
    - dijet at NLO (**1.1**)
      - effect of MPI (MPI on/off)
      - compare inclusive jets with POWHEG for different hdamp params
      - PS on/off
    - trijet with MiNLO (**1.2**)
      - role of hdamp ?
      - PS on/off

Jets and EW bosons: Benchmark Comparisons (2)

- use NNPDF3.1 pdf, CUETp8M1 tune (or something different ?)
- Jets, W+jets, Z+jets
  - MCatNLO
    - dijets at NLO (**2.1**)
      - effect of MPI ?
      - compare with different merging scales
      - PS on/off
    - 2+3 jets at NLO (FxFx) (**2.2**)
      - merging scales ?
      - PS on/off
    - 2+3+4 jest at NLO (**2.3**)
      - merging scales
      - PS on/off

Jets and EW bosons: Benchmark Comparisons (3)

- use NNPDF3.1 pdf, CUETp8M1 tune (or something different ?)
- Jets, W+jets, Z+jets
  - Sherpa (in POWHEG or MCatNLO mode ?)
    - dijets at NLO (**3.1**)
      - effect of MPI
      - merging scales ?
      - PS on/off
    - 2+3 jets at NLO (**3.2**)
      - PS on/off
    - 2+3+4 jets at NLO (**3.3**)
      - PS on/off