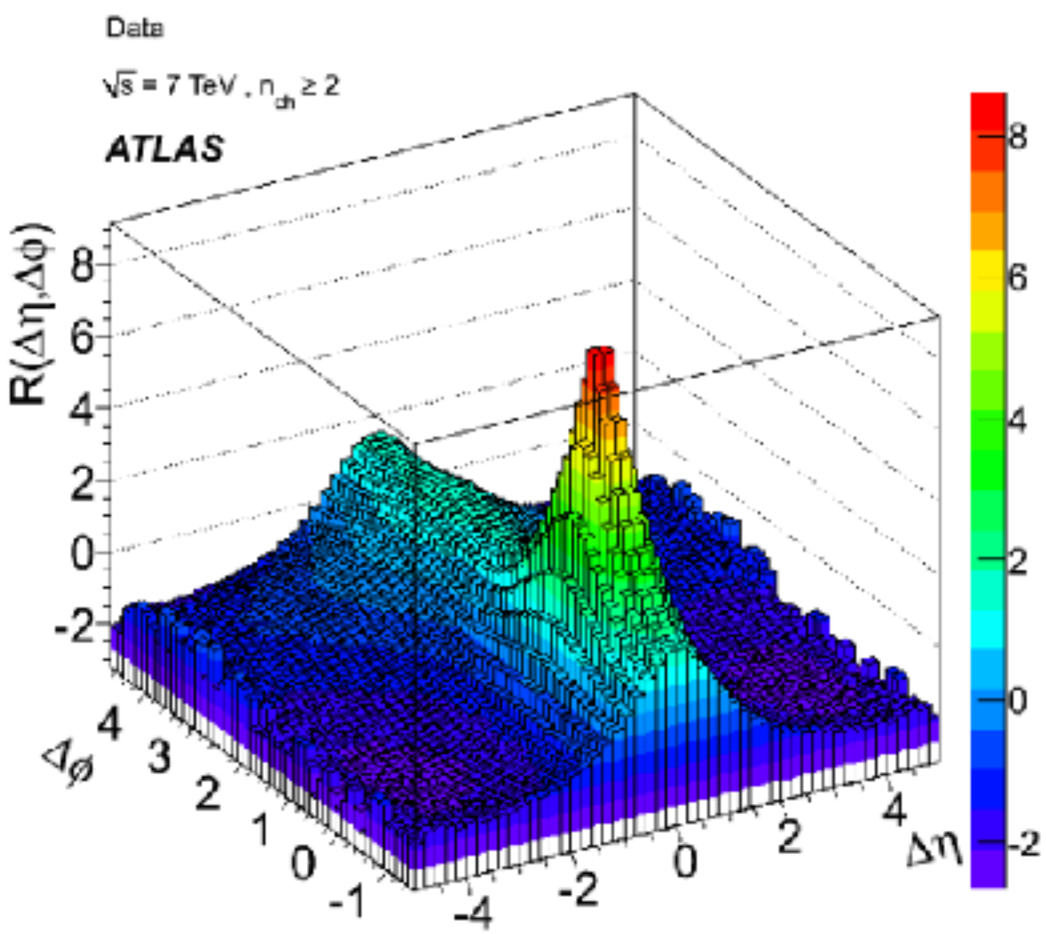
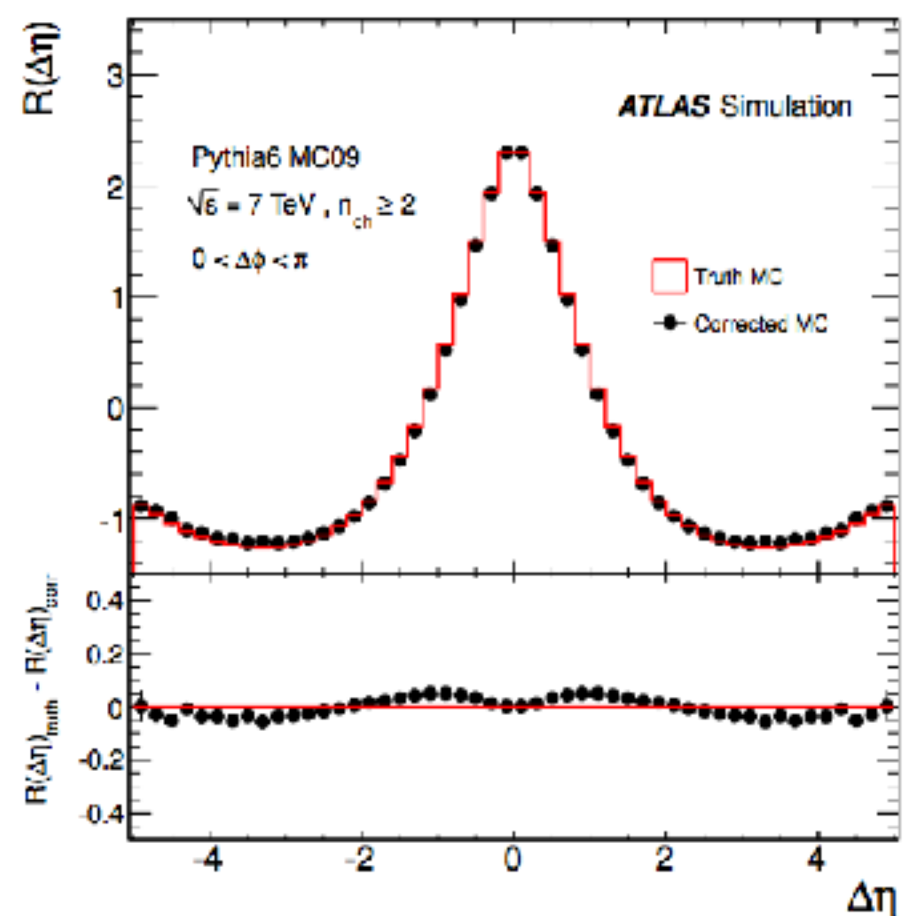
Experience & Interests

- 5 years in ATLAS.
- CMS author for two years.
- Independent phenomenology studies.

Experience & Interests

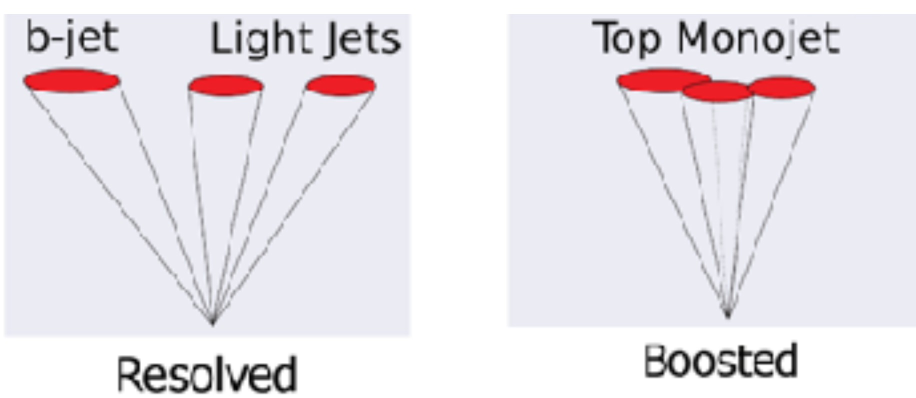
- 5 years in ATLAS:
    - Minimum Bias: two-particle correlations.

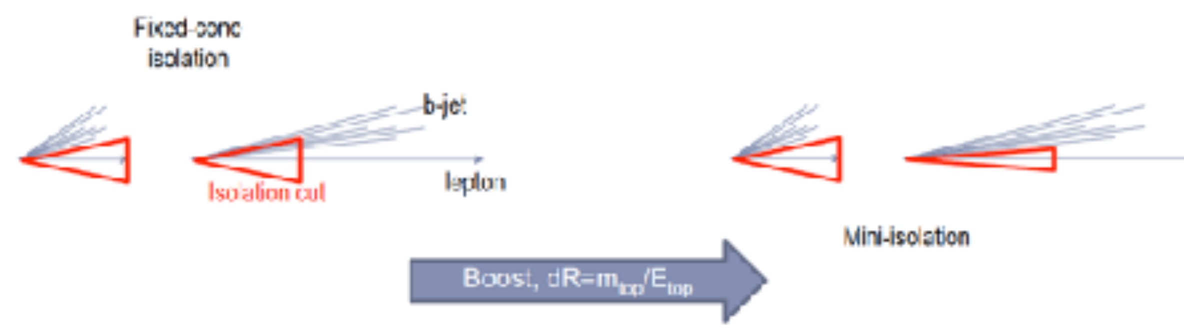


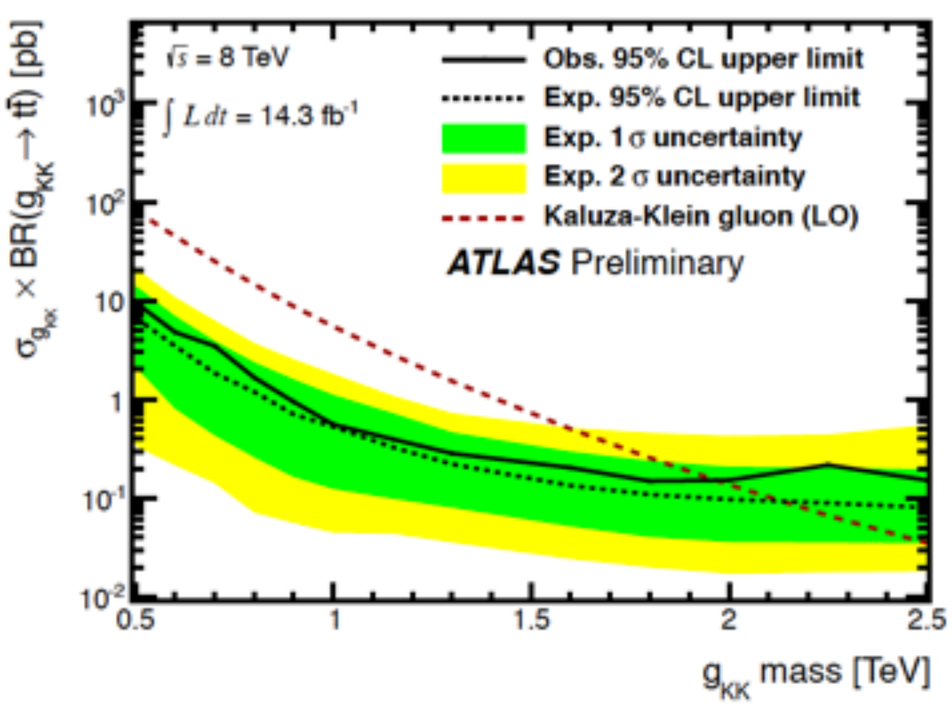


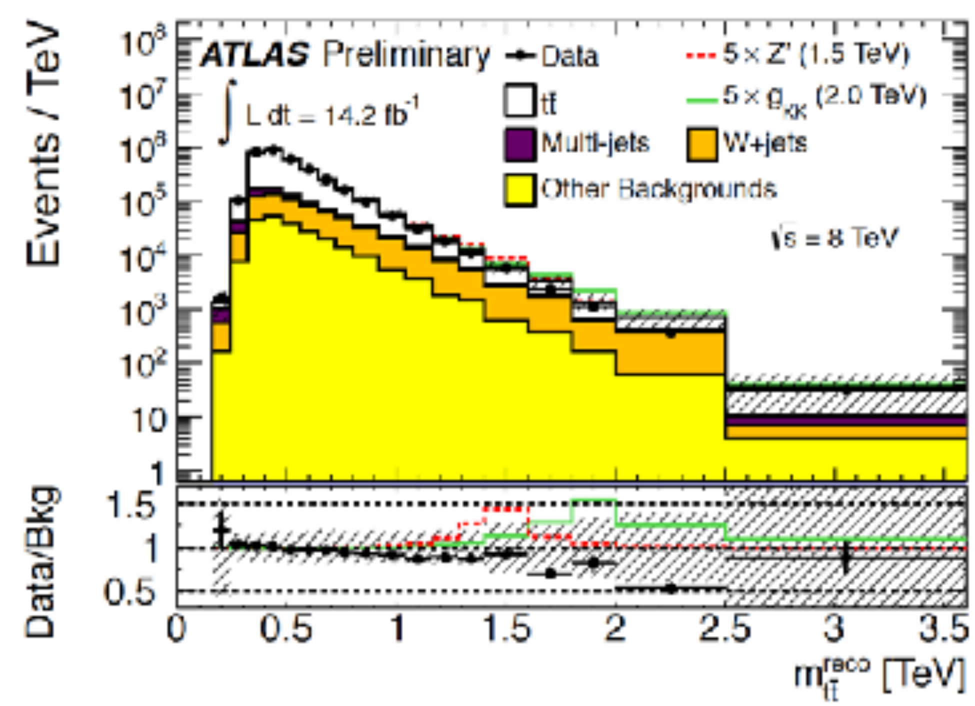
Experience & Interests

- 5 years in ATLAS:
    - Exotics: ttbar resonances searches.



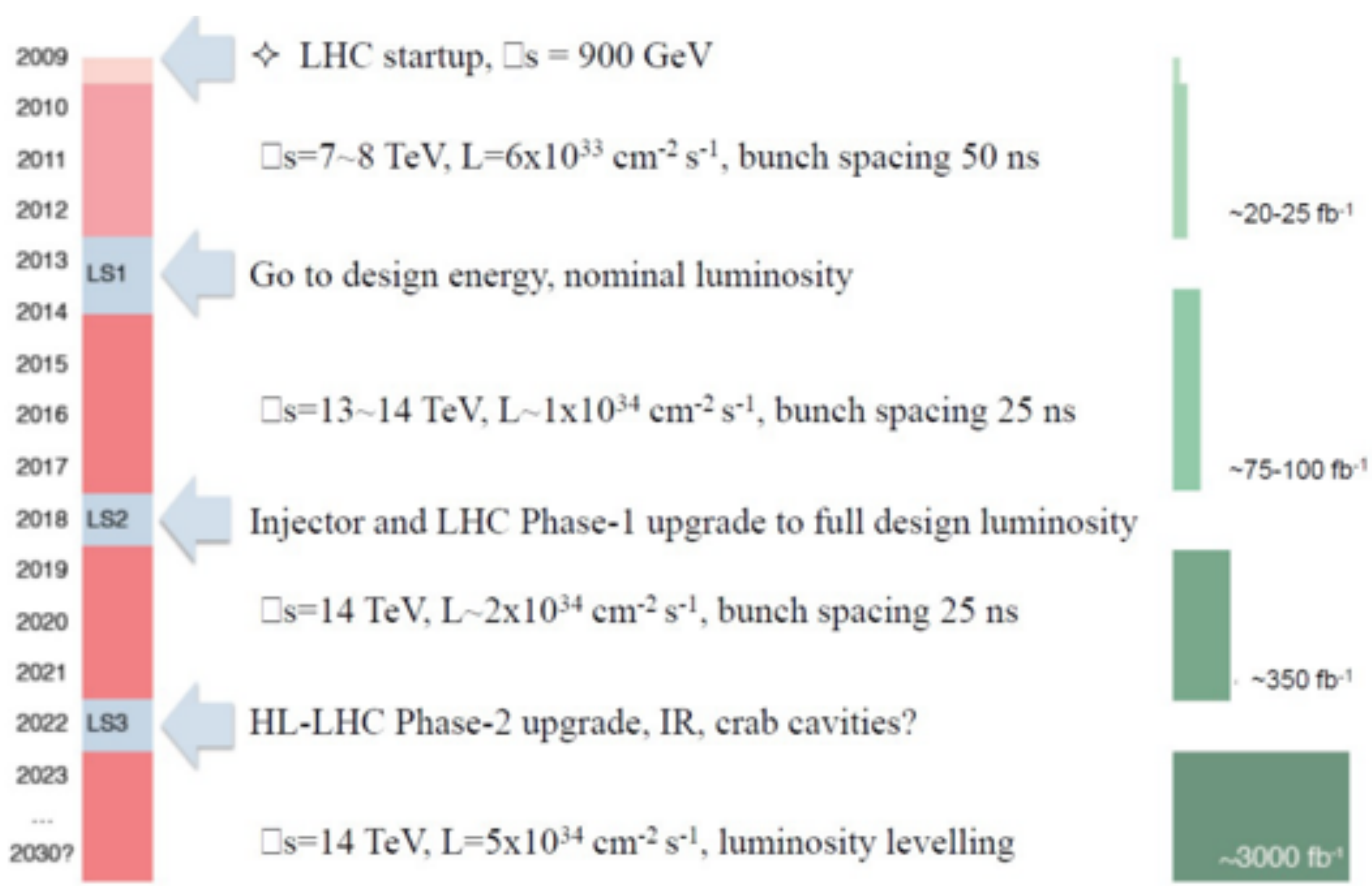






Experience & Interests

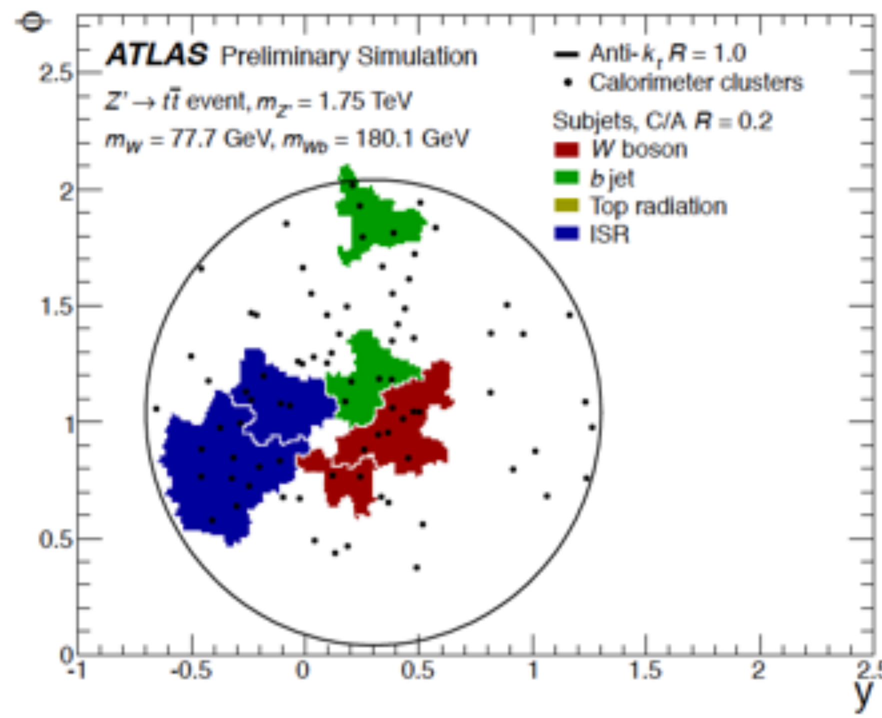
- 5 years in ATLAS:
  - HL-LHC: Higgs self-couplings.

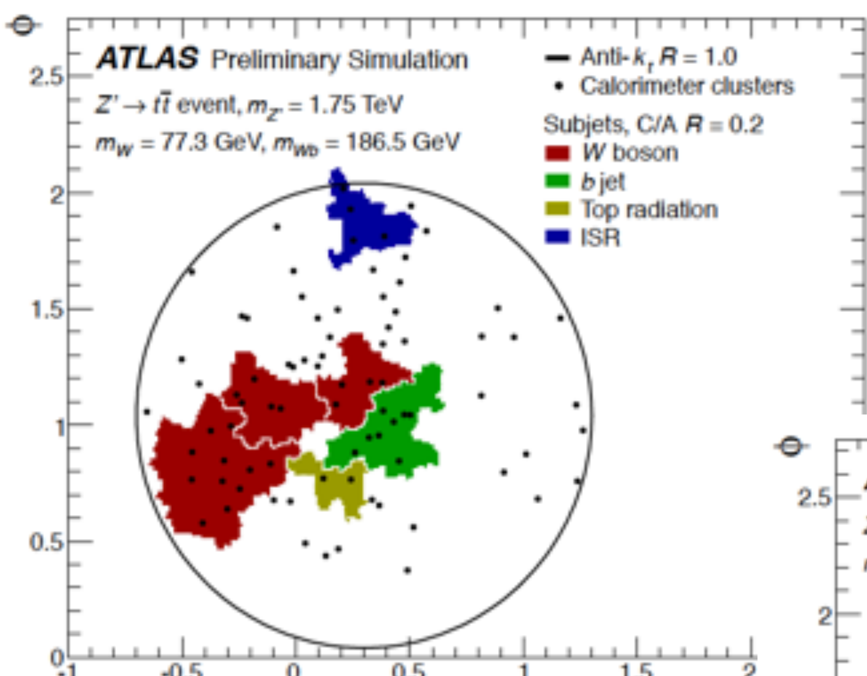


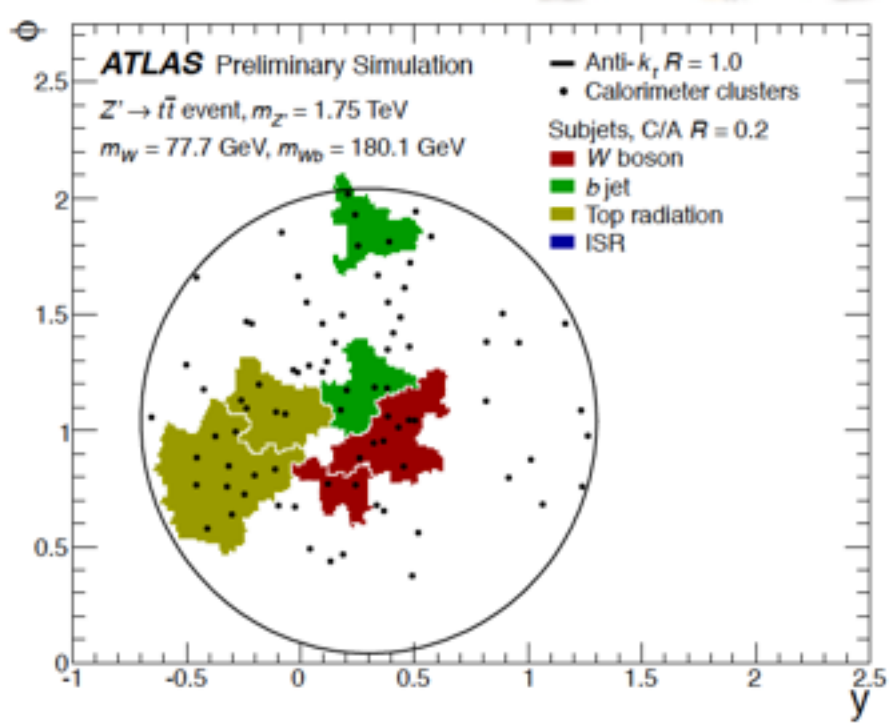
Channel	BR(%)	σ x BR (fb)	Events @ 14 TeV ($L=3000\ fb^{-1}$)
bb+bb	33.41	11.33	34 k
bb+WW	24.97	8.36	26 k
bb+ττ	7.36	2.50	7.5 k
WW+WW	4.67	1.58	4.7 k
ZZ+bb: (ZZ+bb →4l+bb)	3.09	1.03	3.1 k (→13.9)
ZZ+WW	1.15	0.39	1.2 k
γγ+bb	0.27	0.09	270
bb+μμ	0.013	0.004	12.8

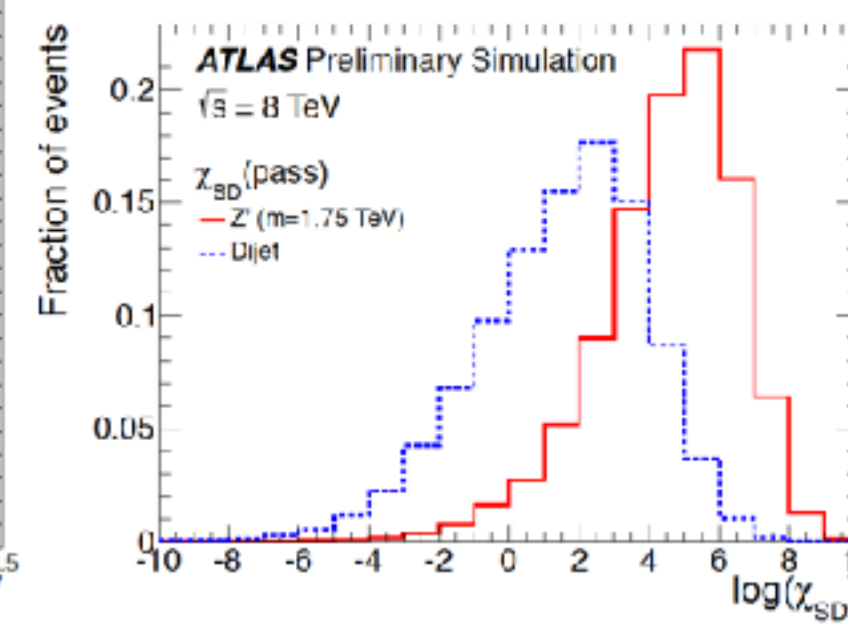
Experience & Interests

- 5 years in ATLAS:
    - Shower-deconstruction.









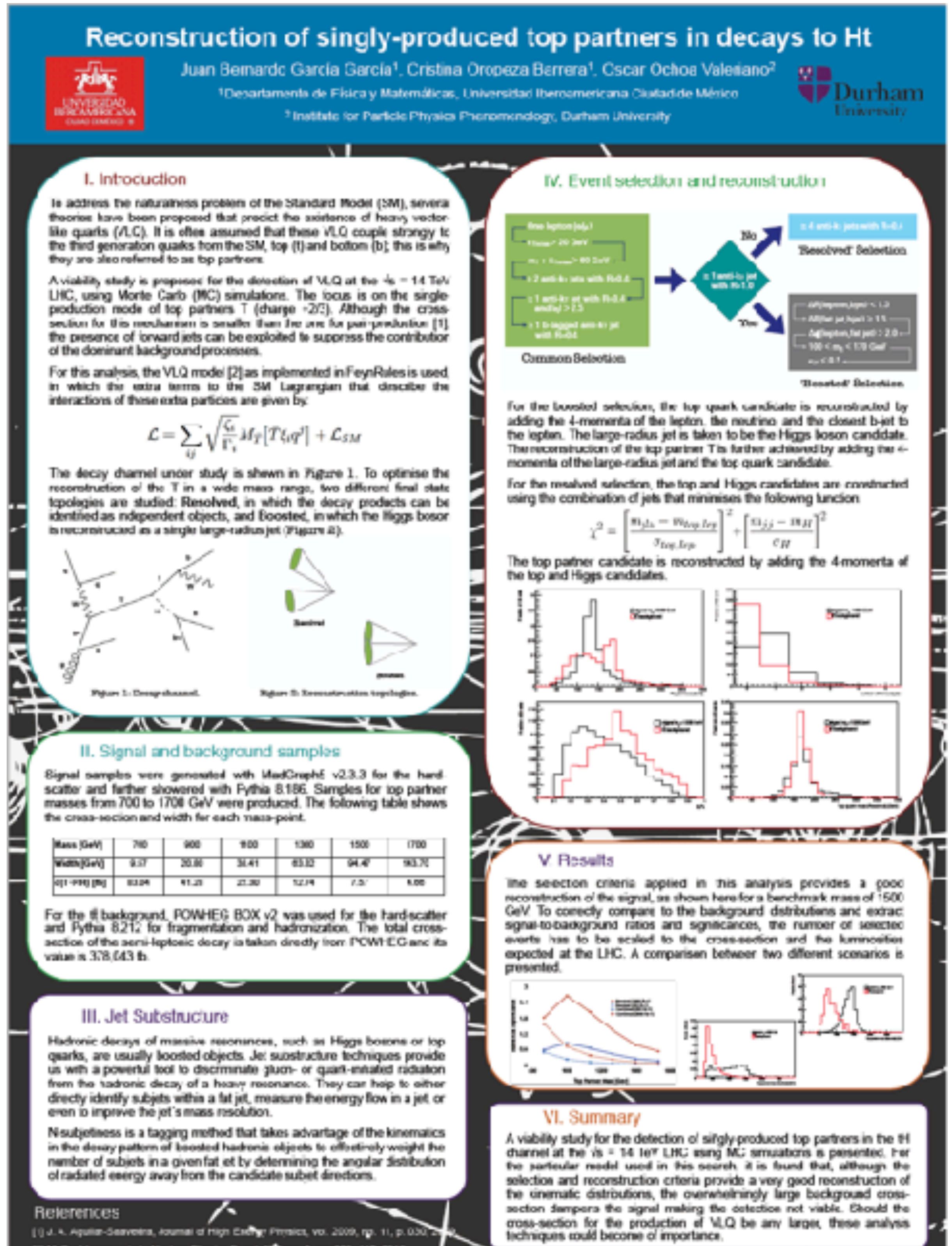
Experience & Interests

- CMS:
  - RPC: cluster size distribution.
  - Jets: PUPPI (Pile-up per particle identification).

Experience & Interests

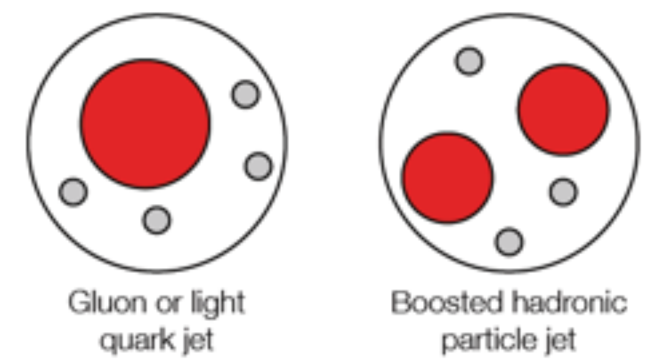
- Phenomenology studies:
  - Single production of top-partners.
    Juan Bernardo García García (Ibero)
  - New physics and machine learning (starting in 2018).
    Javier Orduz Ducuara (FES-Acatlán UNAM)

Experience & Interests



Experience & Interests

- Interests:



  - Join an analysis group in CMS.
    Preferably on new physics searches, top physics.

  - Jet algorithms for boosted topologies.
    Jet substructure.