Based mostly on this prompt…
Plausibility of the anomaly as detector effect vs. statistical fluctuation vs. new physics

Some of us had this
conversation 2 years ago!

T. Lecompte

Priors and Prejudice

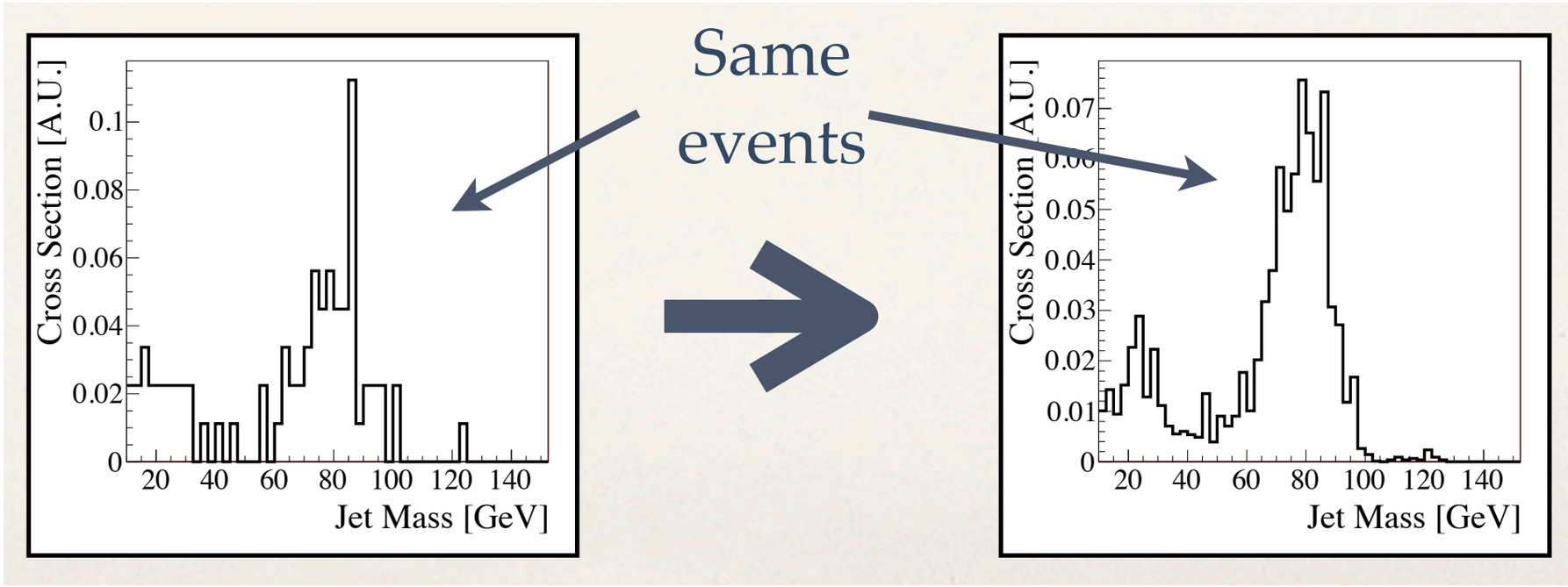
- I asked about two dozen people if they would believe a result only on a boosted signature
  - Nobody gave an unqualified “yes”
  - Everyone said “it would depend what it was”
  - There was a desire for a confirming result
    - A second channel
    - Interestingly, the same thing from the other experiment was viewed as weak confirmation. The concern is that there is some common systematic.

- Better integration of the “boosted community” in the experiments can only help
  - People need to get comfortable with these new ideas, and this is one way to do this
  - A parade of SM results using boostology would be helpful
  - Top Group sociology enters into this in non-trivial ways

building confidence…

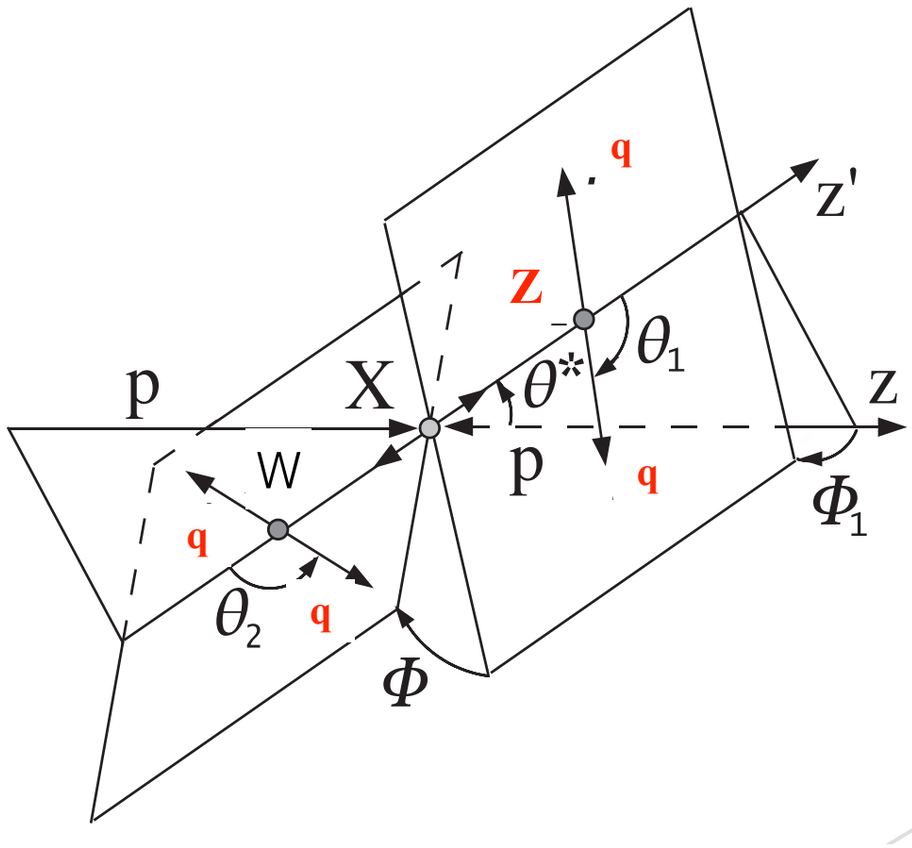
In the same way that often experiments show many kinematic distributions

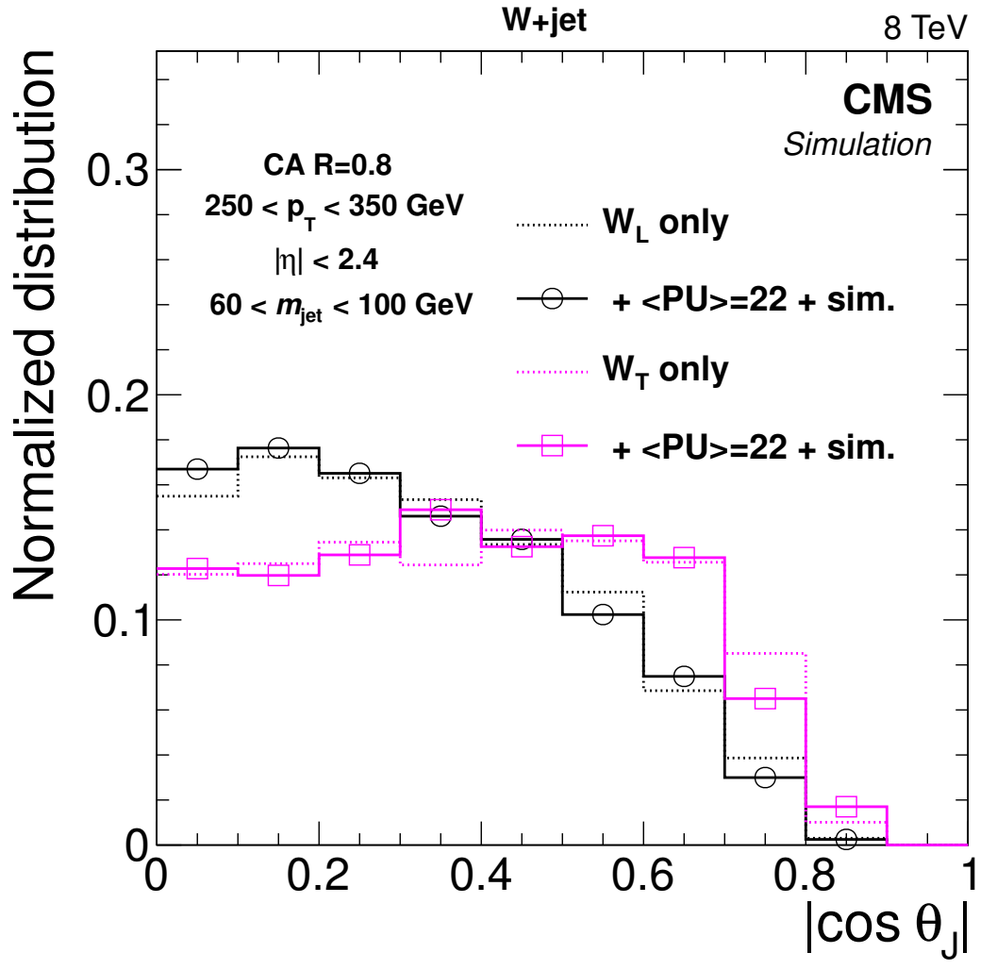
1. Cross-experiment check, use each other's methods
2. Show not just the tagging variables used but a whole suite of substructure variables (e.g. not τ21, but also y_{filt}, etc)



D. Krohn

An interesting application of QJets





information. The resolution on the angular distance between two subjets in the laboratory frame is approximately 10 mrad, which translates to a resolution of approximately 65 mrad on θ_J in the W rest frame. The resolution remains relatively constant over a large range of W jet p_{T}.

expect 3σ separation with ~100 events

HZZ4L spin-parity measurements made at time of discovery…