

What Puzzles Remain at High p_T ?

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A mea culpa: This talk hasn't been the top thing on my to-do list. It's really just an "informal (and incomplete) chat".

γ +Jet as a “Holy Grail”

- Extremely important observable
 - Know Q^2 (up to k_T effects)
 - See ~all of the photons
 - A probe of the underlying medium through it's interactions with the energetic recoiling parton

Jet Tomography

- To have a “calibrated” probe requires that we know more than just the production rate
- Is the theoretical picture of energy loss correct?
 - L^2 dependence
 - Heavy quarks < light quarks < gluons

Hadronization

- Are the parton \rightarrow hadron formation processes intrinsically different in vacuum and in the vicinity of “other stuff”?
 - Baryon-meson differences but with jet-like correlations?
 - Near-side jet-like correlations, but also near-side long-ranged correlations?

How Does the Medium Respond?

- When you hit it, it must recoil
- Not all of the extra associated hadrons need to be direct remnants of the soft gluon radiation

Thermalization

- How can it happen so fast?
- Do we really start from a CGC?
- If so, what is the CGC?