

# The ATLAS b-Tagging Infrastructure

*Tuesday, March 24, 2009 8:00 AM (20 minutes)*

The ATLAS detector, one of the two collider experiments at the Large Hadron Collider, will take high energy collision data for the first time in 2009. A general purpose detector, its physics program encompasses everything from Standard Model physics to specific searches for beyond-the-standard-model signatures. One important aspect of separating the signal from large Standard Model backgrounds is the accurate identification of jets of particles originating from a bottom quark. A physics analysis in-and-of-itself, ATLAS has developed a series of algorithms based on the unique aspects of bottom quark decay (soft lepton association, long life time). This talk gives a brief overview of these algorithms and the software infrastructure required to support them in a production environment like the one found at ATLAS. Some attention will also be paid to the different perspectives of the algorithm writer, who wants to understand exactly how a jet is tagged as being from a bottom quark, and an analysis user, who is only curious to know if a jet is “tagged” and what the fake rate is.

## Presentation type (oral | poster)

oral

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**Session Classification:** Poster session

**Track Classification:** Event Processing