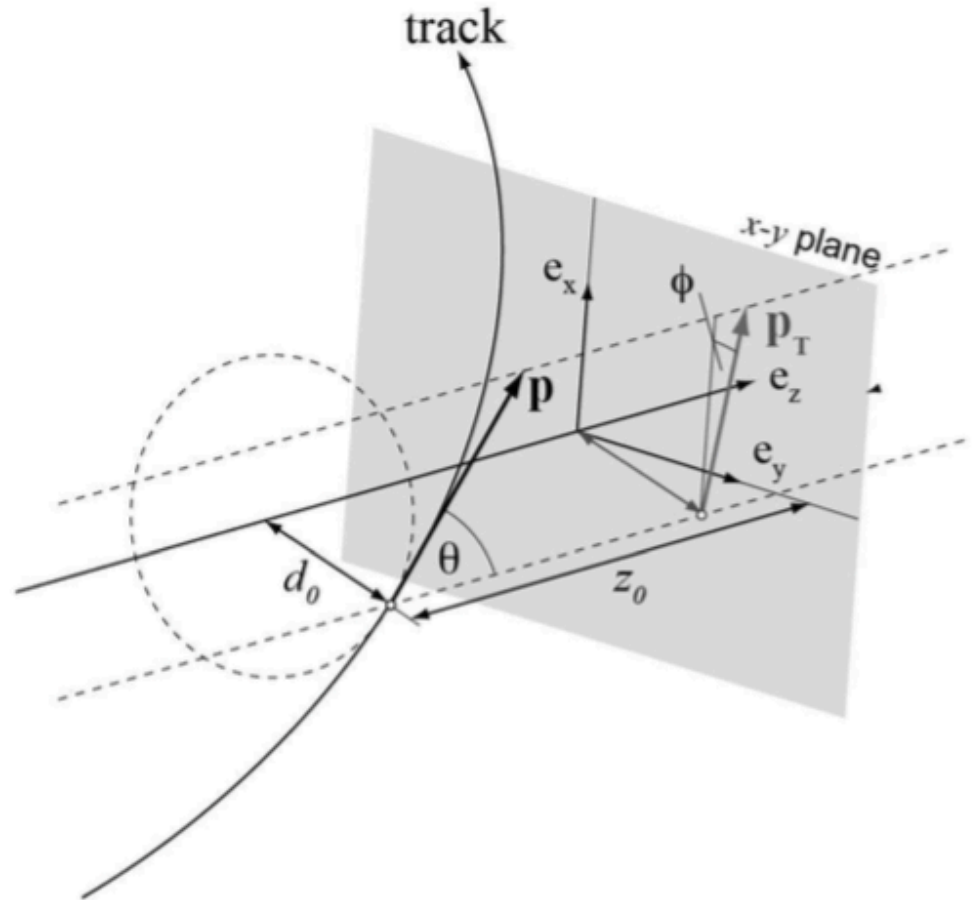
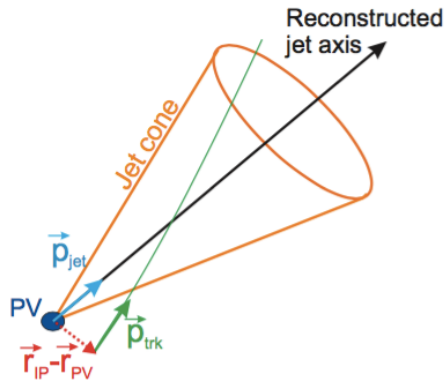


b-tagger Characterization; Iterative-Sinusoidal-Tagging Algorithm

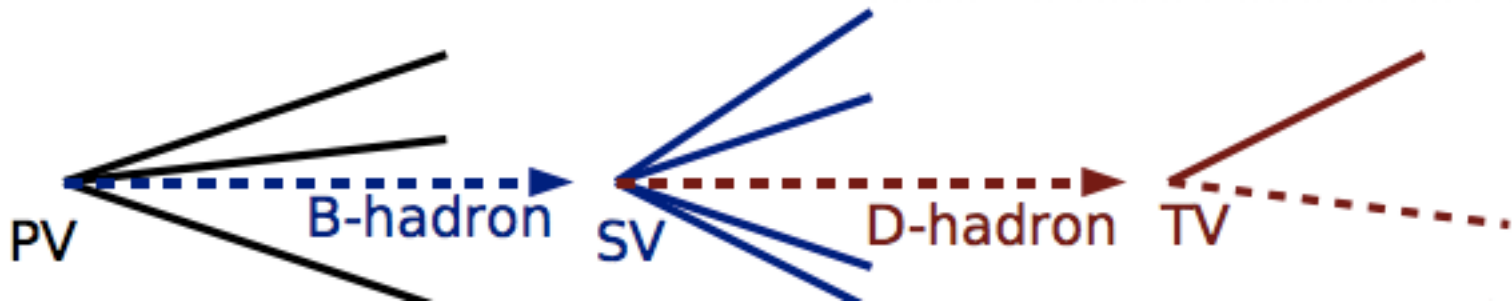
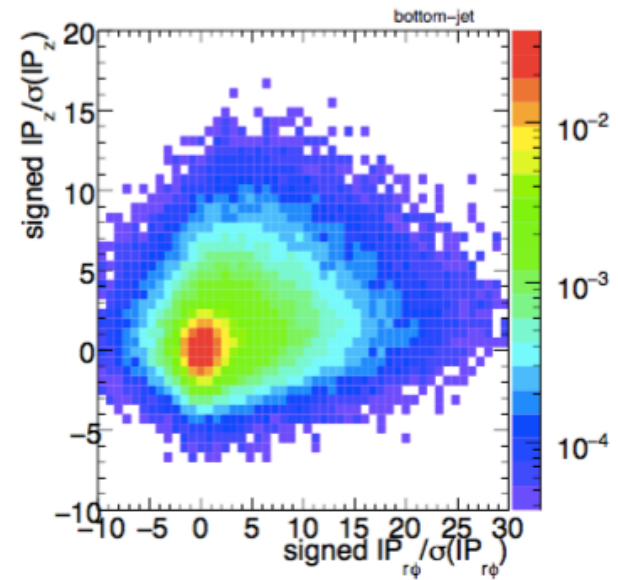
Michael Dobbs
ATLAS-SLAC

- Given data from ATLAS run:
 - 654372 jets; 15 tracks
 - 5 variables:
 - Sd0
 - Sz0
 - pTFrac
 - dR
 - Trkqual



- 4 Tagging Algorithms:

- SV1
- IP3D
- JetFitter
- MV2
 - Neural Network
 - IP3D + SV1 + JetFitter

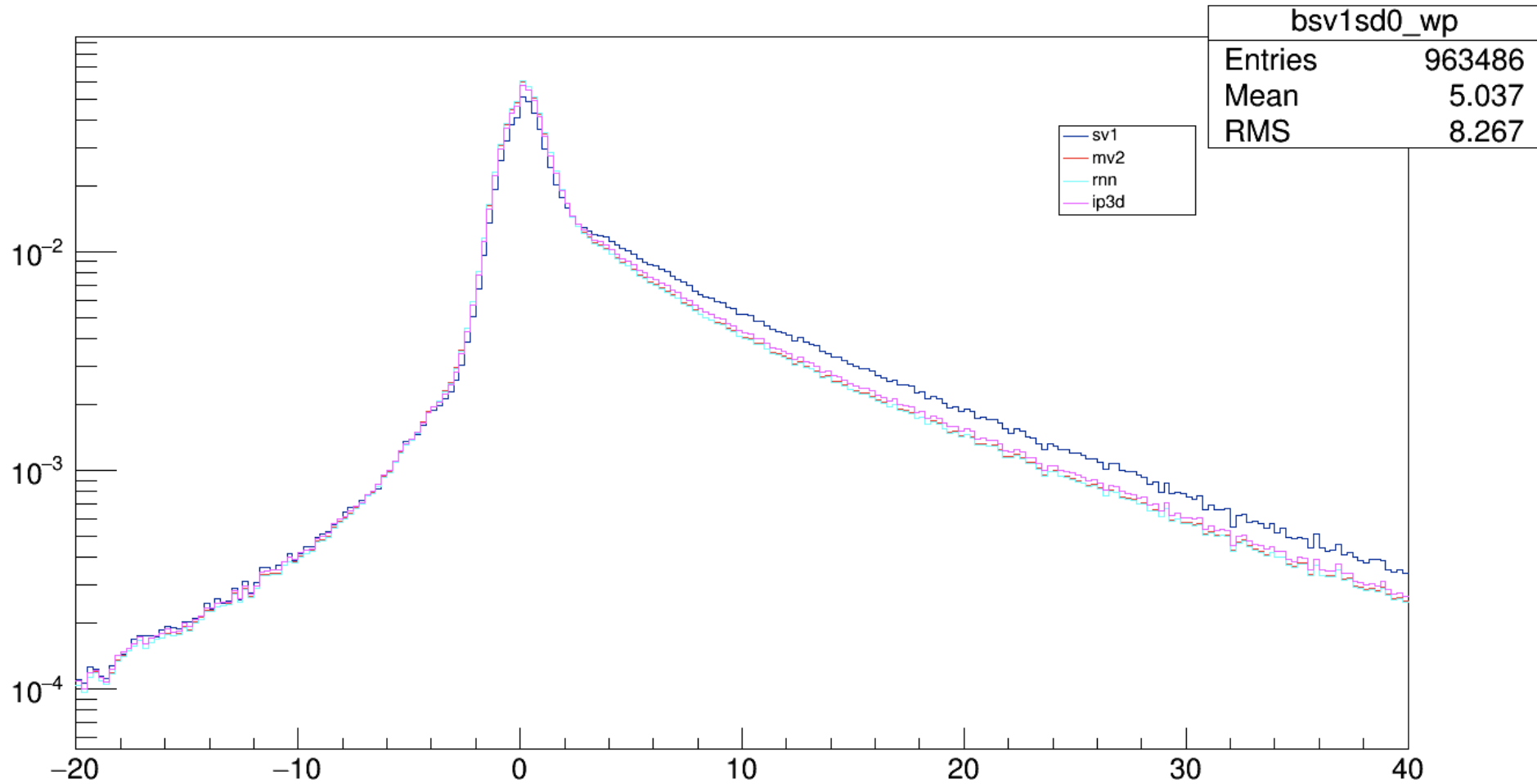




Characterization



bsv1sd0_wp

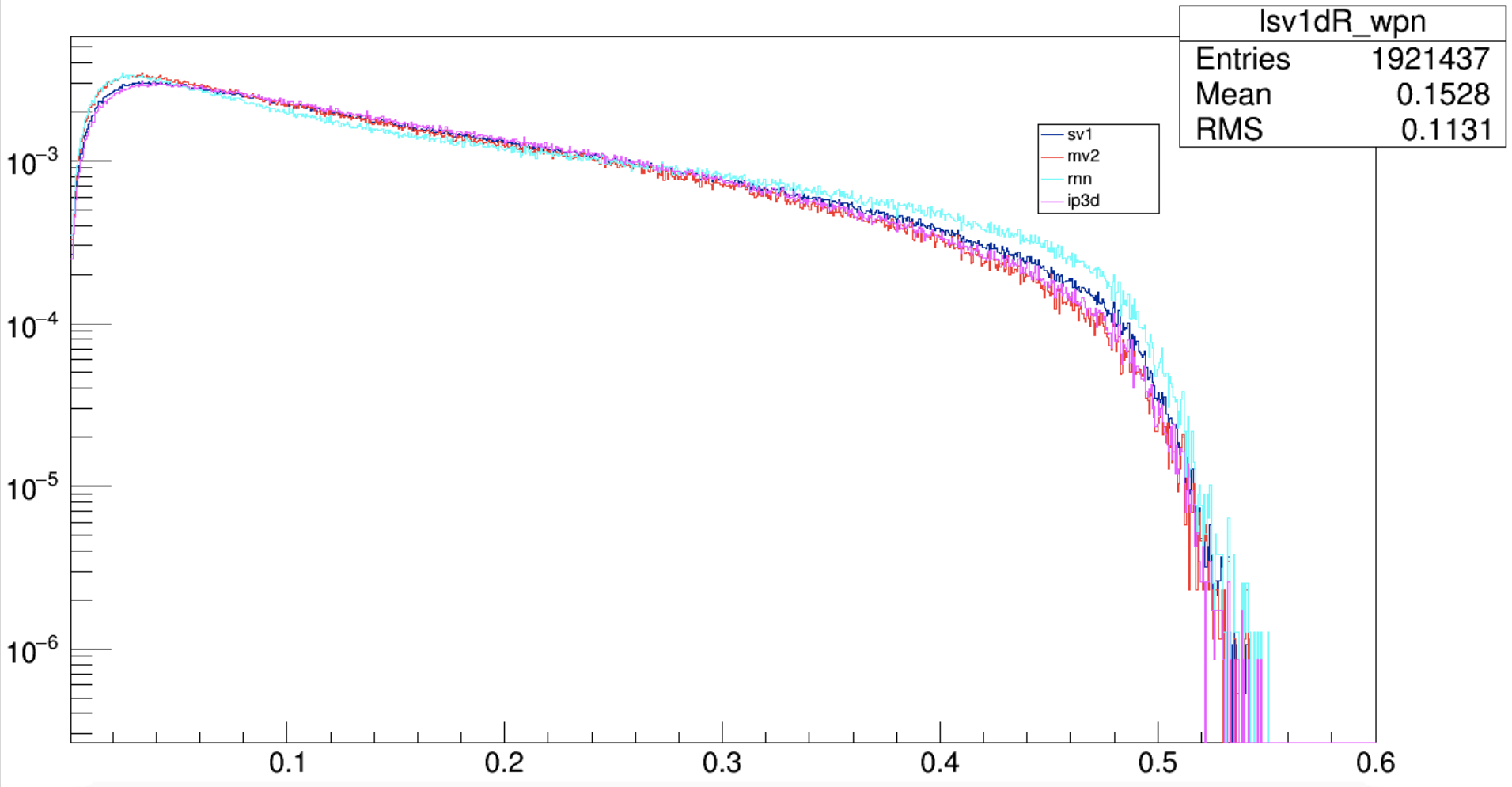




Characterization



lsv1dR_wpn





Tagging Alg.



- Linear Regressions Technique

- Approximately linear:
 - For small opening angle: $\text{Sin}(\phi) \sim \phi$
 - $d = r \phi$
- Graphs to analyze:
 - d_0 v. $d\phi$
 - z_0 v. $d\eta$

