Analysis of the v12 runs data

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Data sample

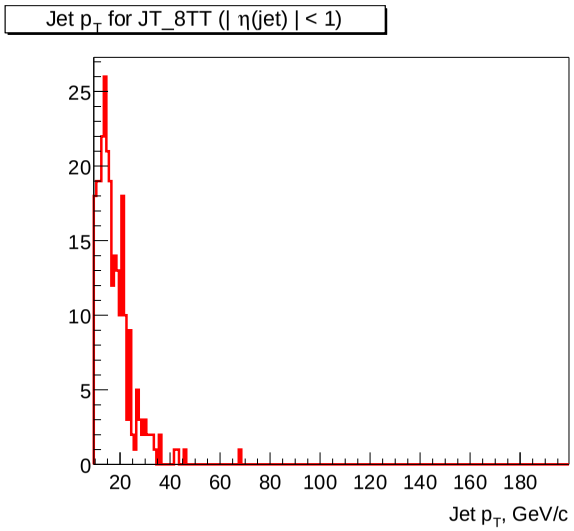
- Sample properties:
  - run numbers: 178 098, 178 103
  - reconstructed with p14.03.00
  - jet triggers:

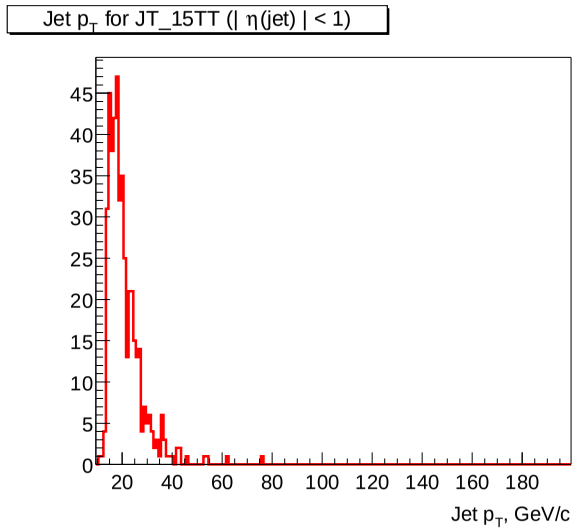
    `JT_8TT, JT_15TT, JT_25TT_NG, JT_45TT, JT_65TT, JT_95TT, JT_125TT`
- Event selection:
  - at list 1 primary vertex (PV)
  - at least 5 tracks pointing to the primary vertex
  - $|Z_{\mathrm{PVtx}}| < 50$ cm

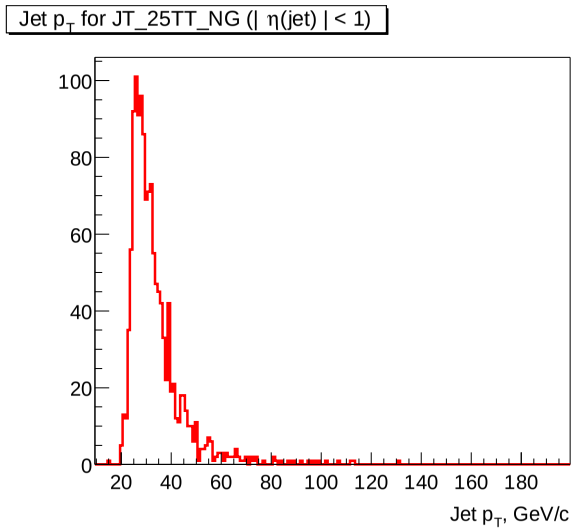
Jet selection

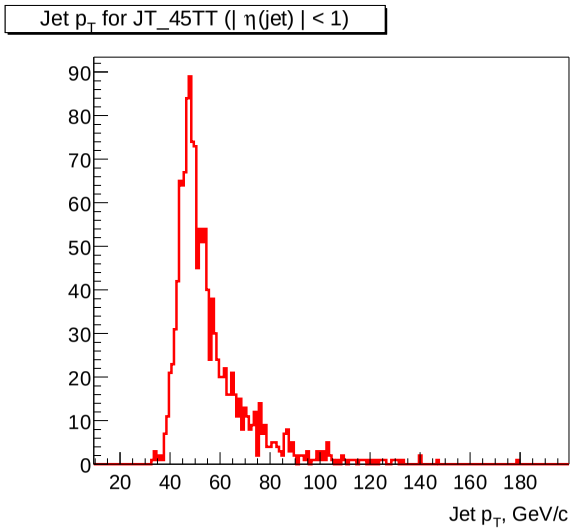
- Jet selection for turn on:
  - leading jet with $|\eta| < 1.0$ or $|\eta| < 3.0$ (separately)
  - Jet ID cuts
- Jet selection for jet quality test:
  - $|\eta| < 1.0$
  - $p_T(\text{jet}) > 10$ GeV/c (for `JT_8TT`)
  - $p_T(\text{jet}) > 20$ GeV/c (for `JT_15TT`)
  - $p_T(\text{jet}) > 35$ GeV/c (for `JT_25TT_NG`)
  - $p_T(\text{jet}) > 50$ GeV/c (for `JT_45TT`)
  - $p_T(\text{jet}) > 70$ GeV/c (for `JT_65TT`)
  - $p_T(\text{jet}) > 105$ GeV/c (for `JT_95TT`)
  - $p_T(\text{jet}) > 145$ GeV/c (for `JT_125TT`)
- Jet selection for η vs φ plots:
  - Jet ID cuts
  - p_T cuts (see above)

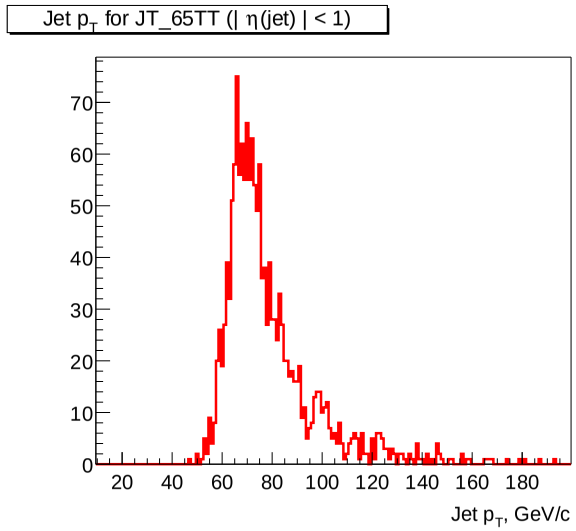
Leading jet p_T $(|\eta_{jet}| < 1.0)$

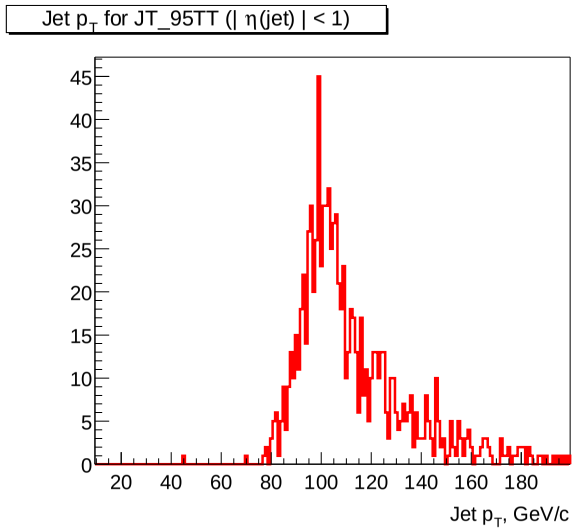




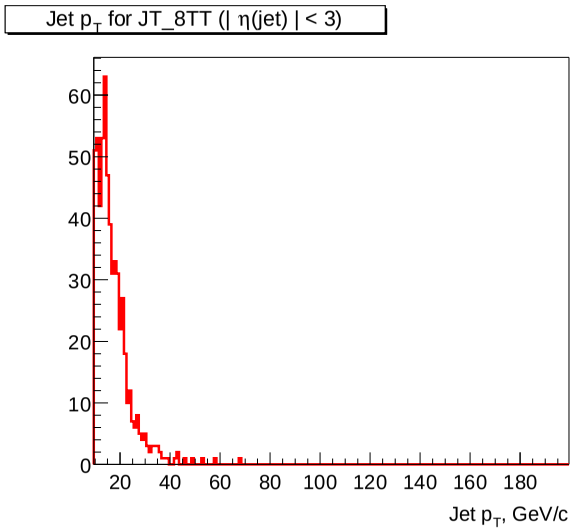


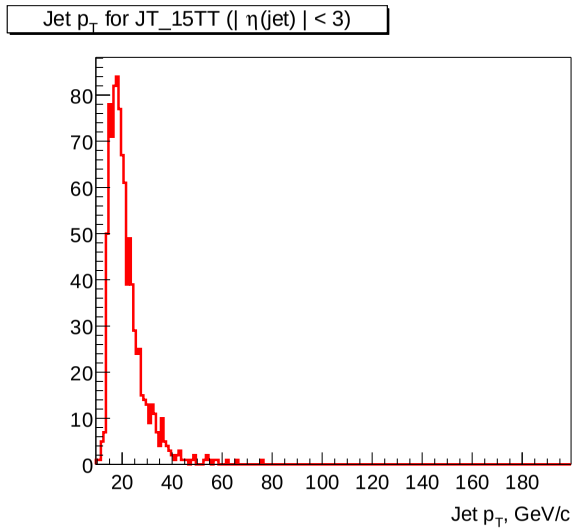


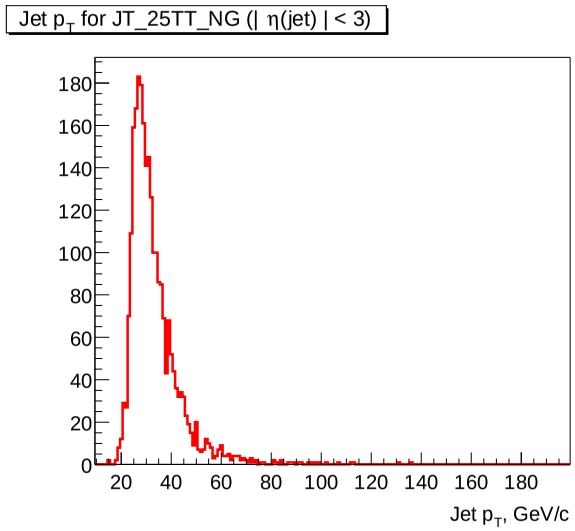


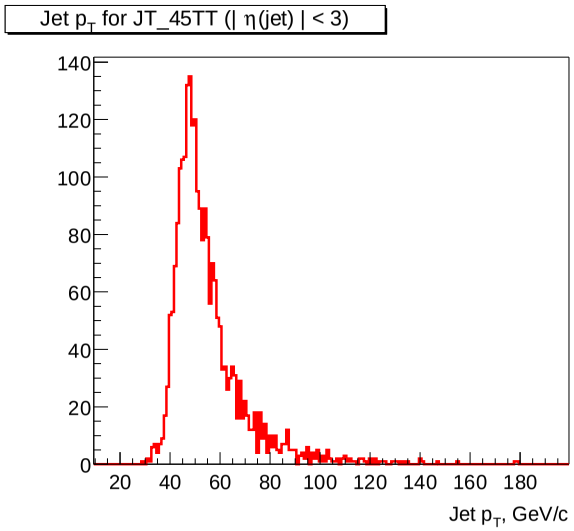


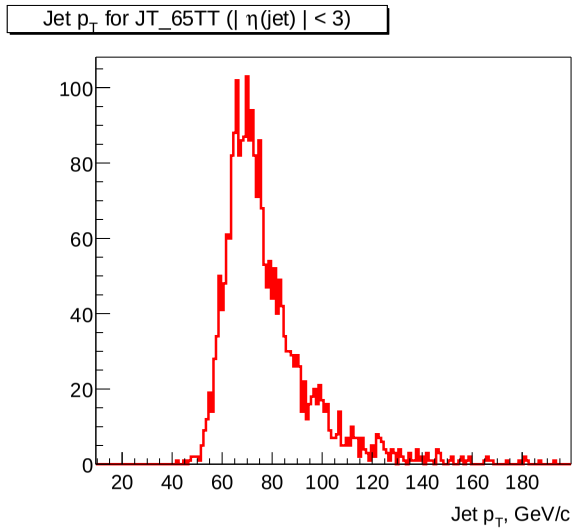
Leading jet p_T $(|\eta_{jet}| < 3.0)$

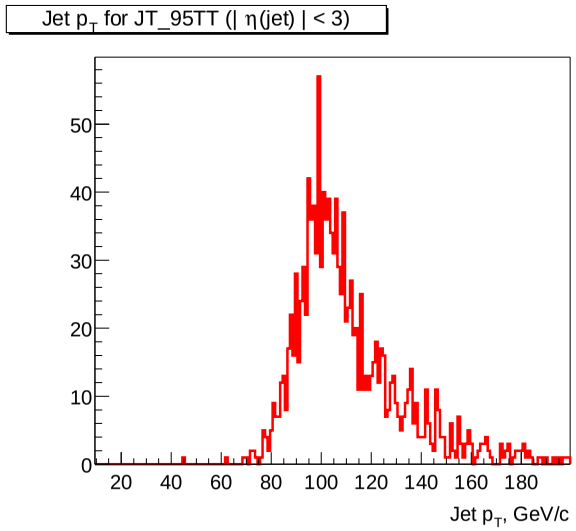




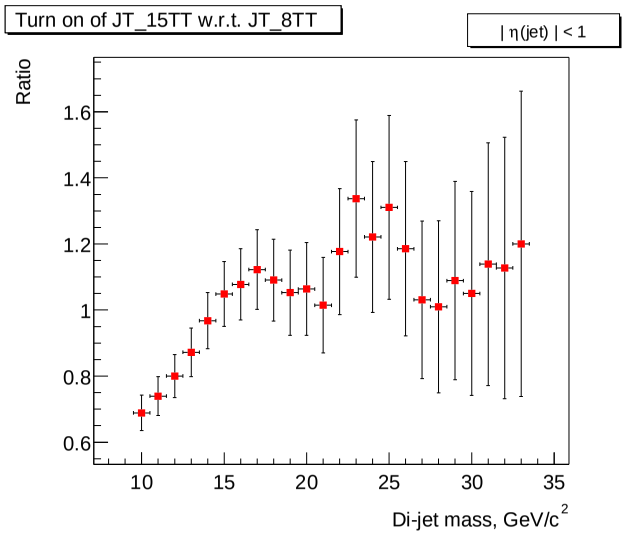


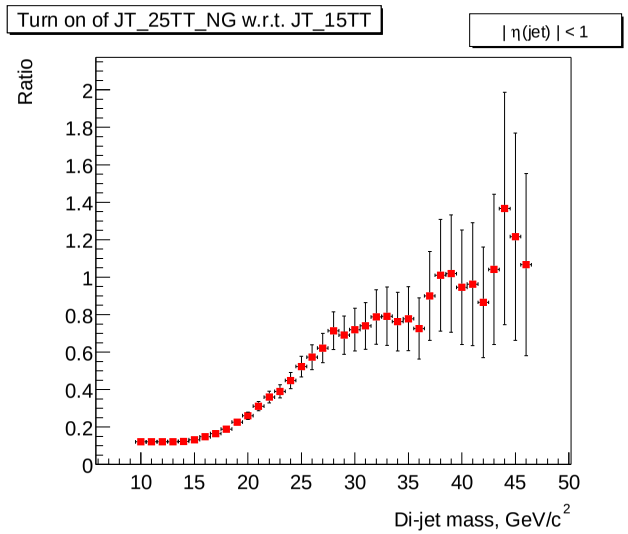


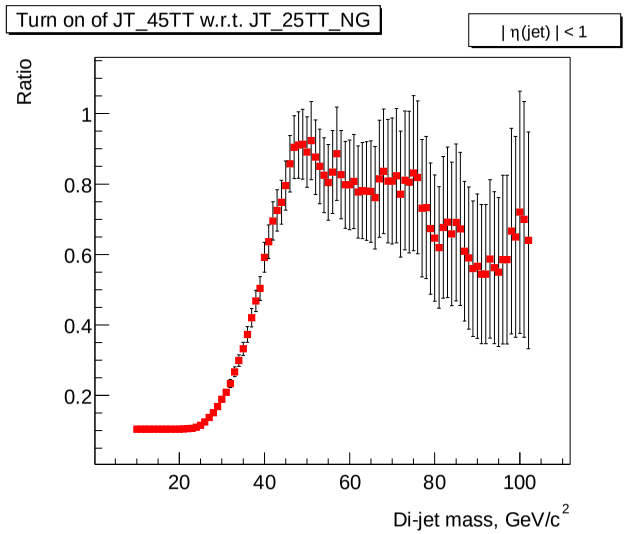


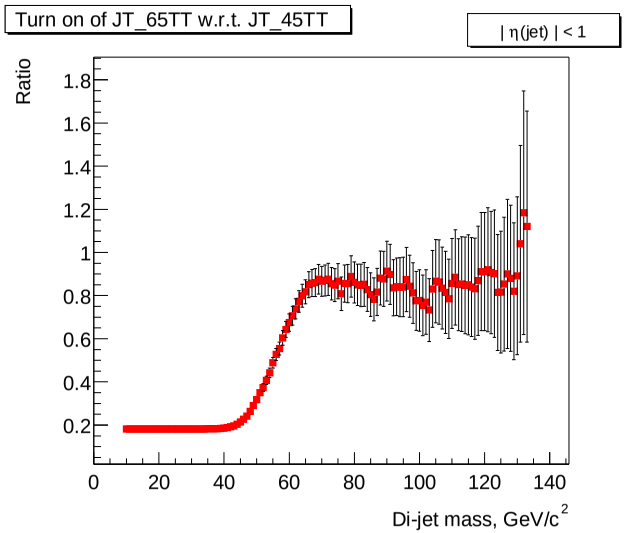


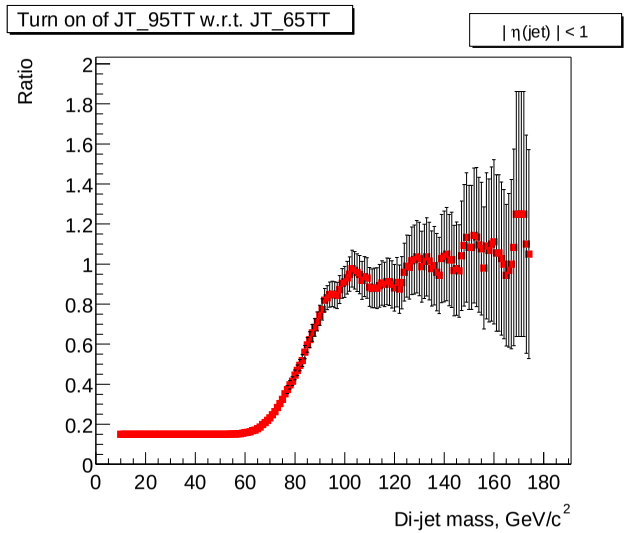
Turn on curves for $|\eta_{jet}| < 1.0$

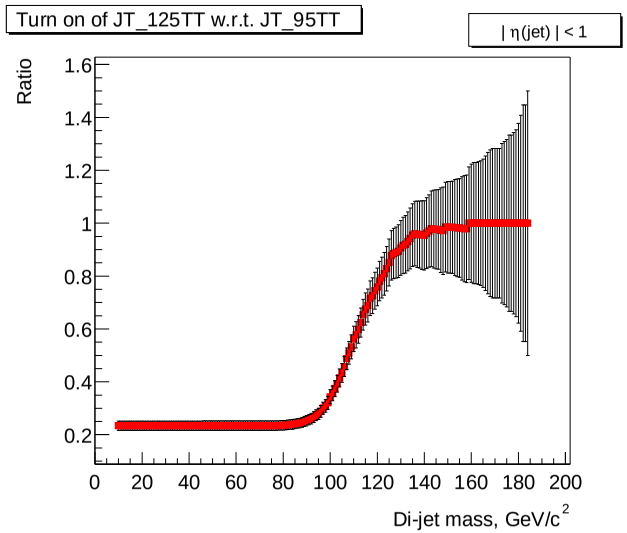




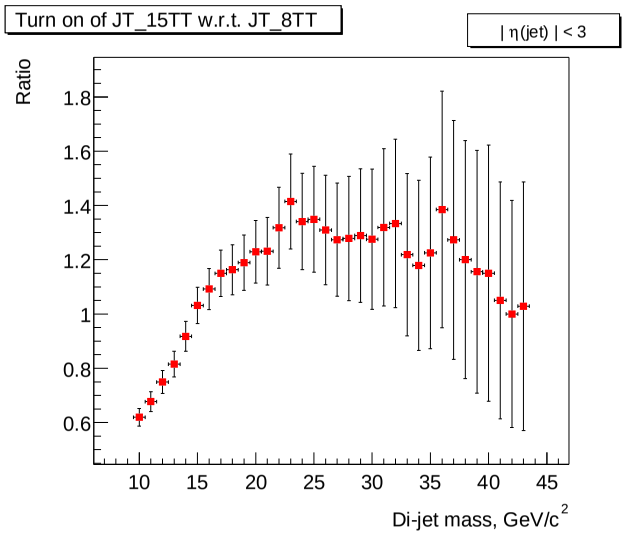


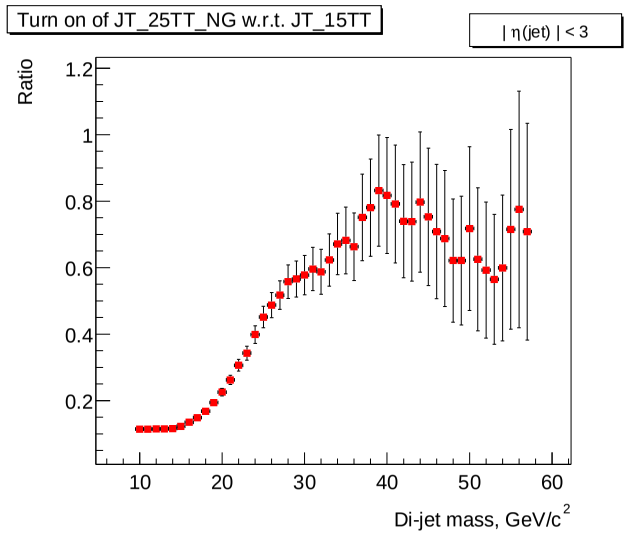


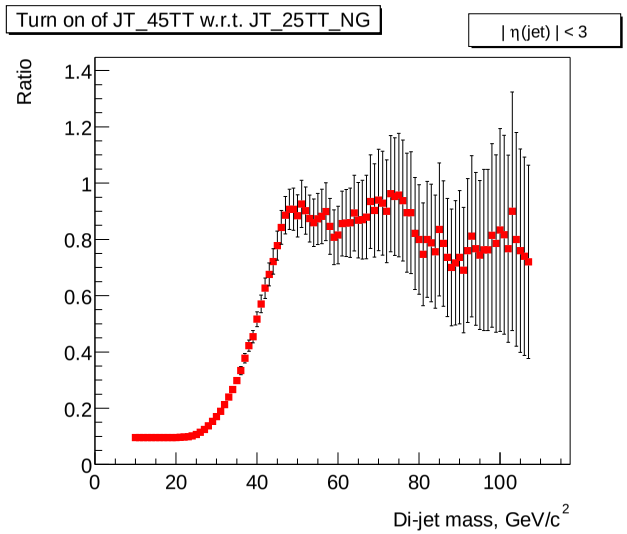


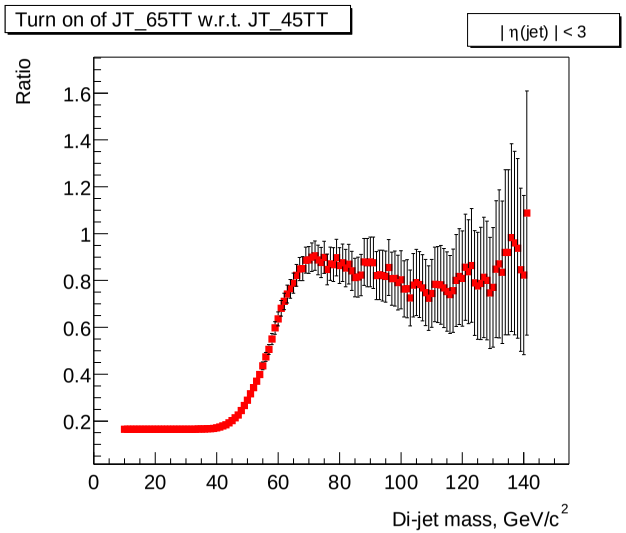


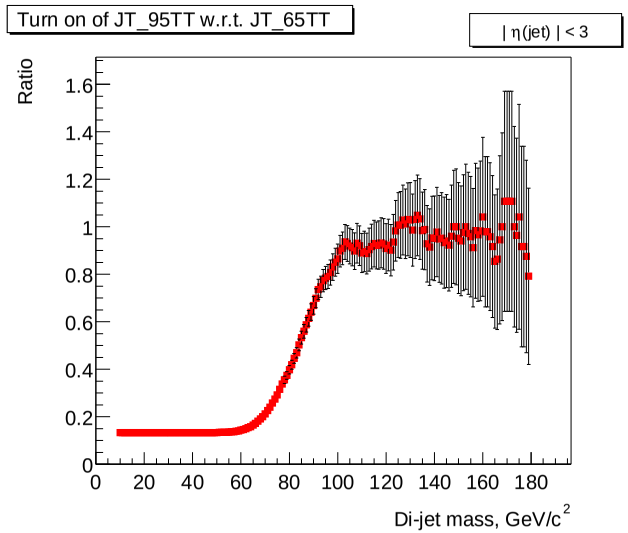
Turn on curves for $|\eta_{jet}| < 3.0$

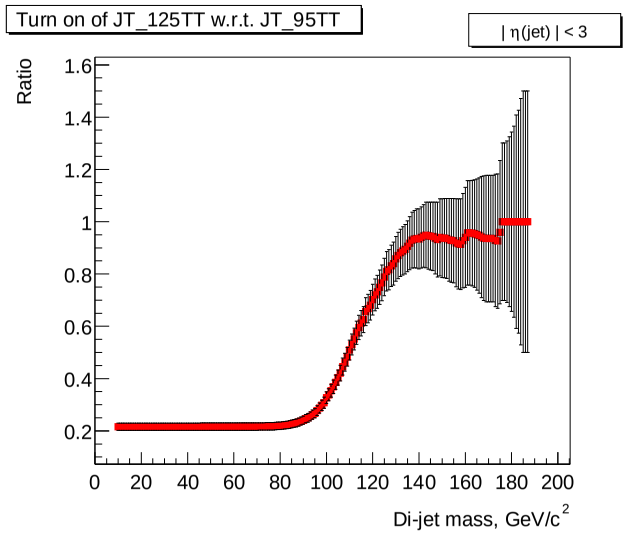




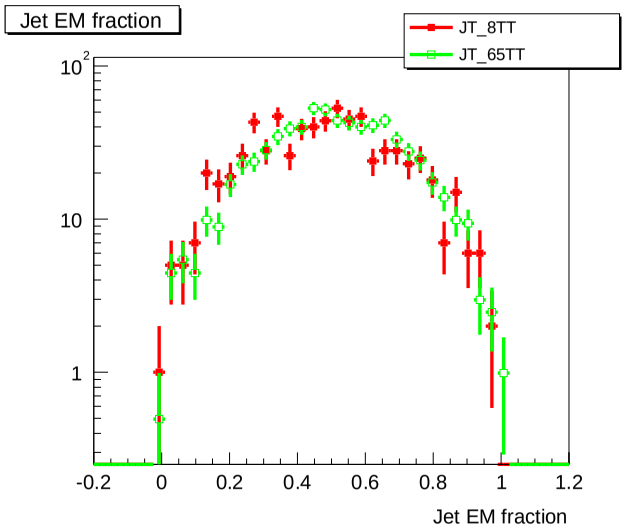


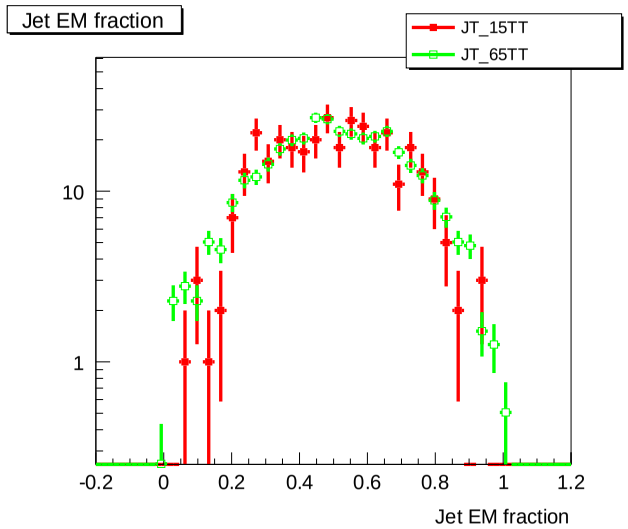


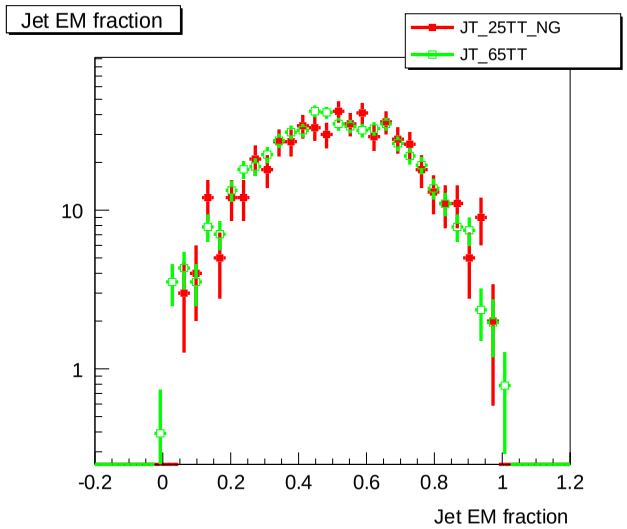


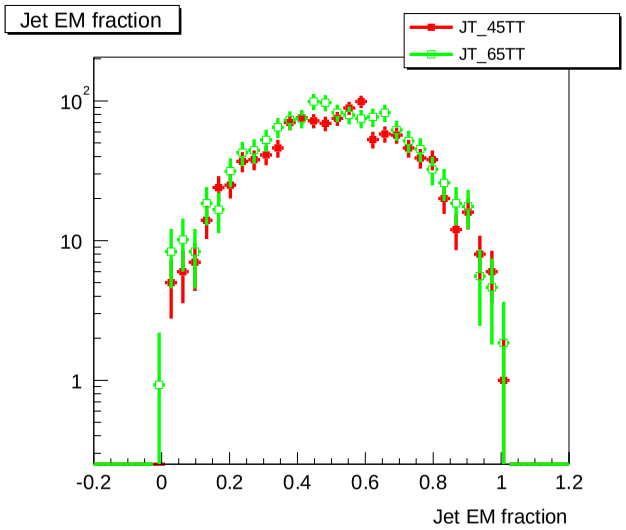


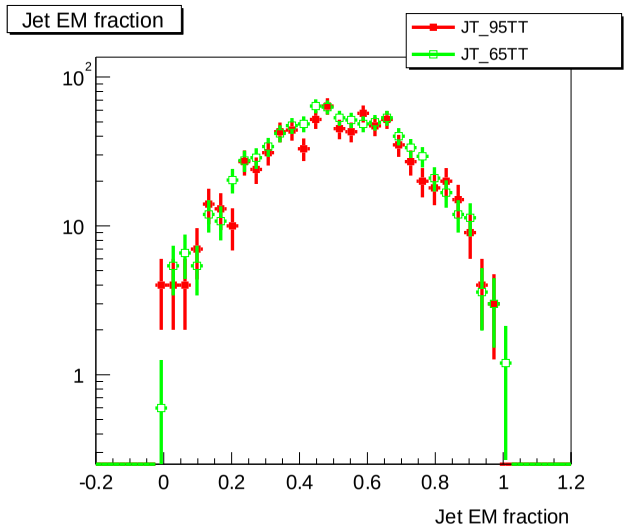
Jet EM fraction ($|\eta_{jet}| < 1.0$)

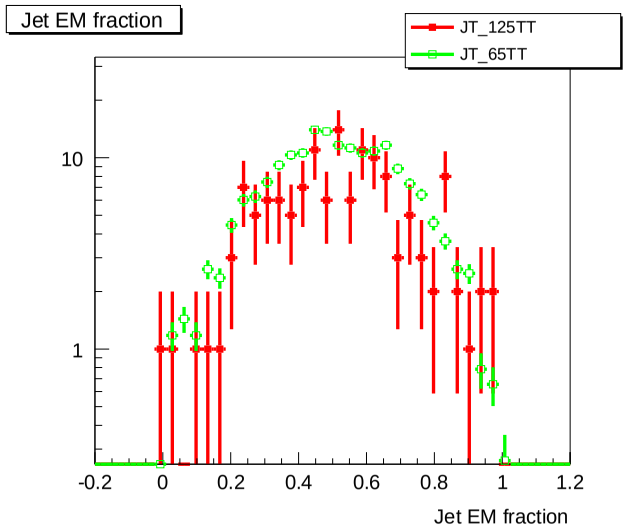




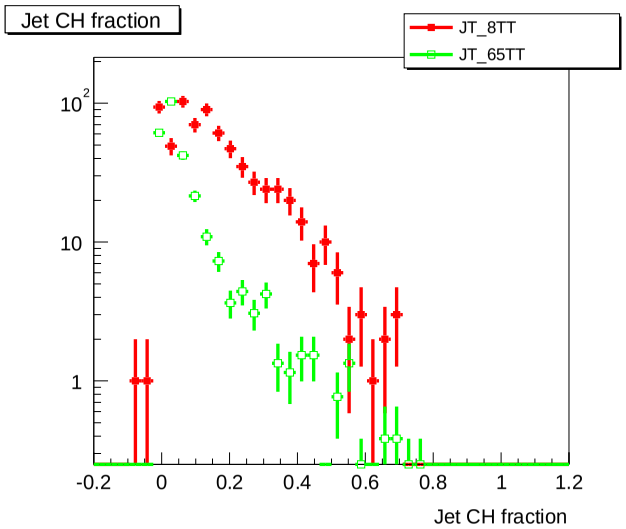


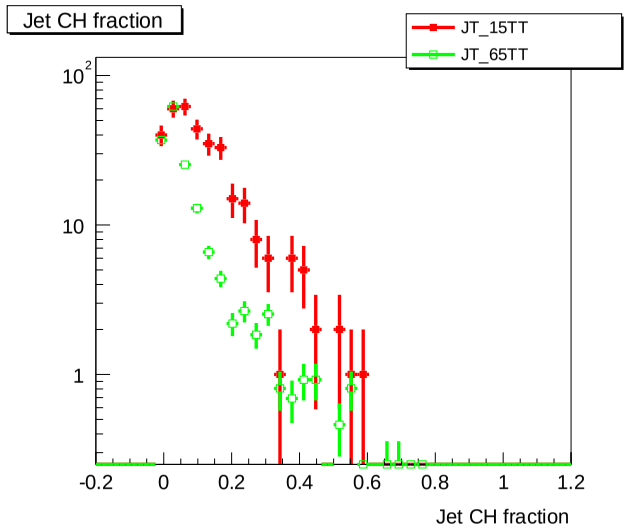


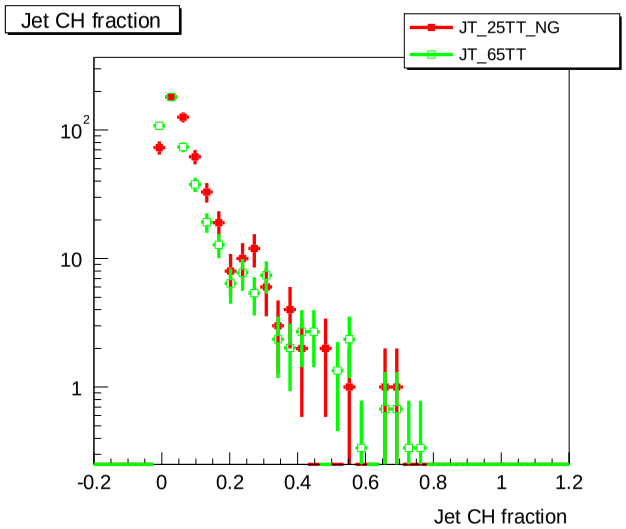


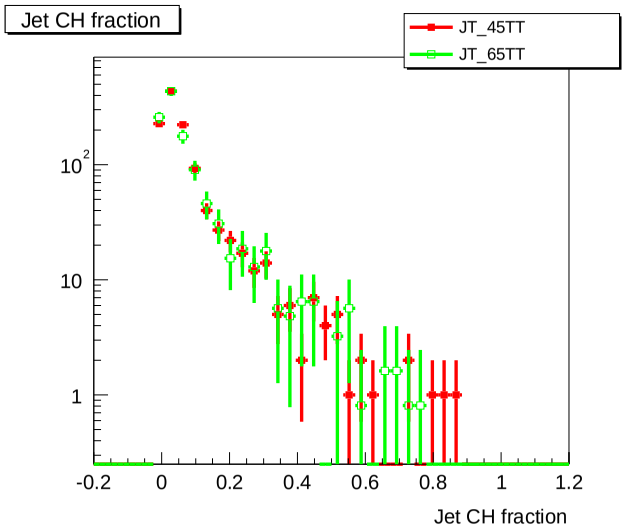


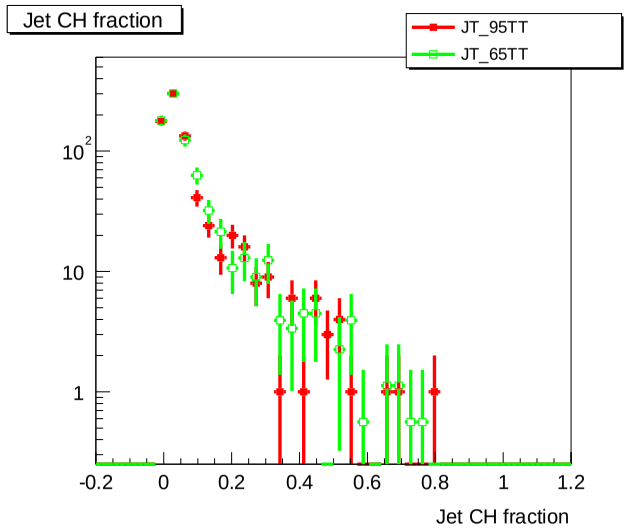
Jet CH fraction ($|\eta_{jet}| < 1.0$)

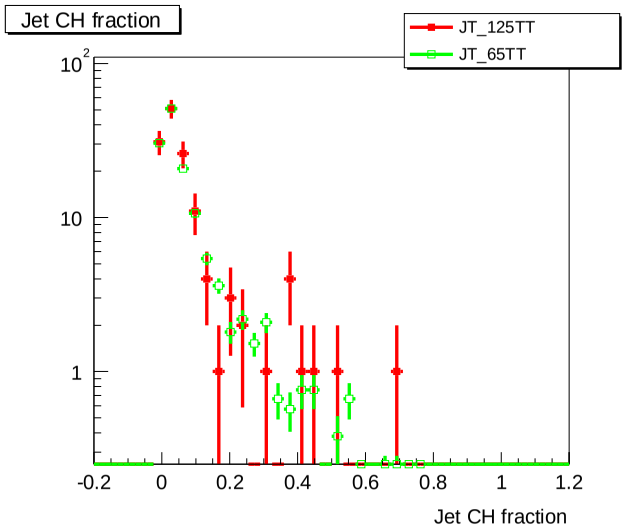




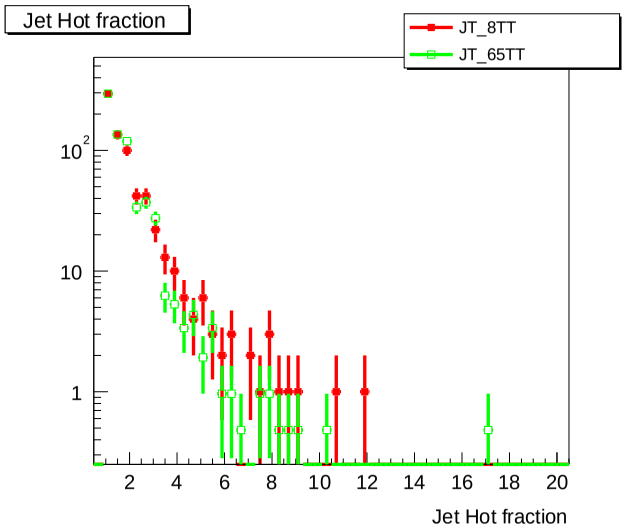


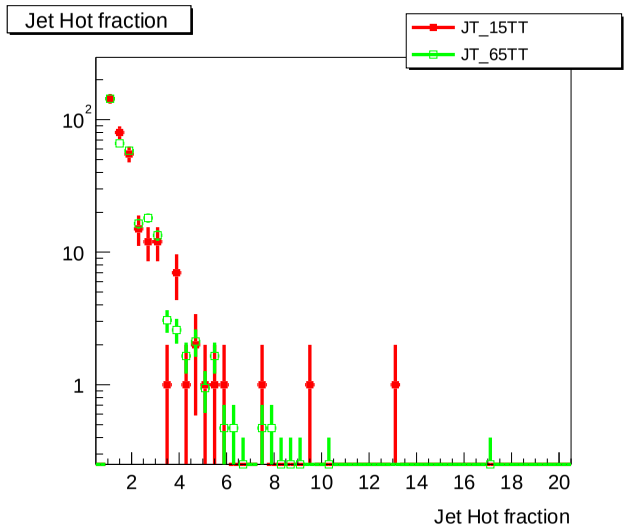


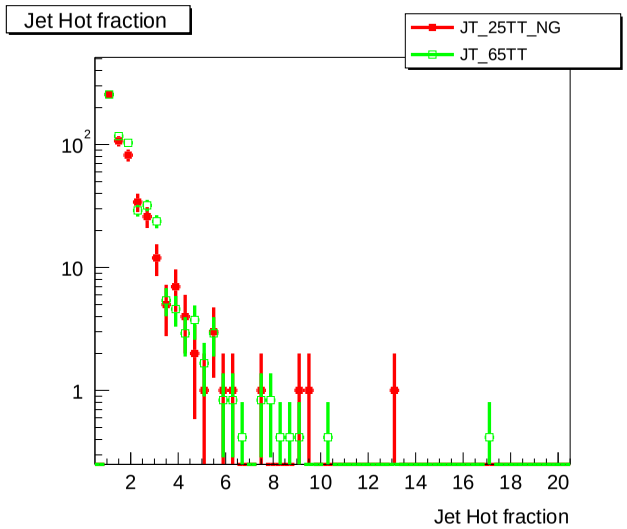


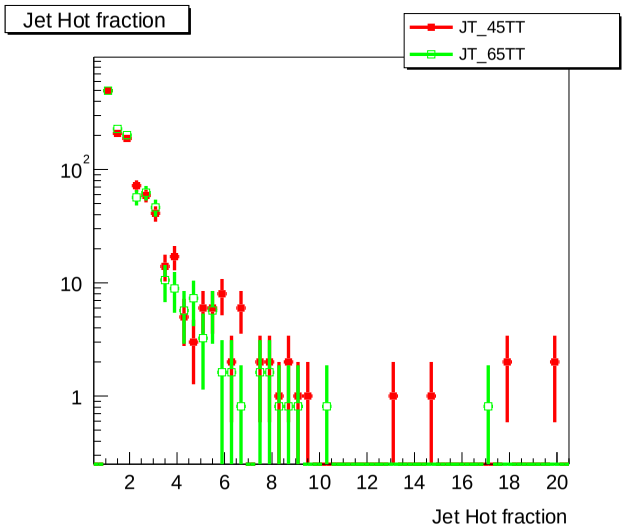


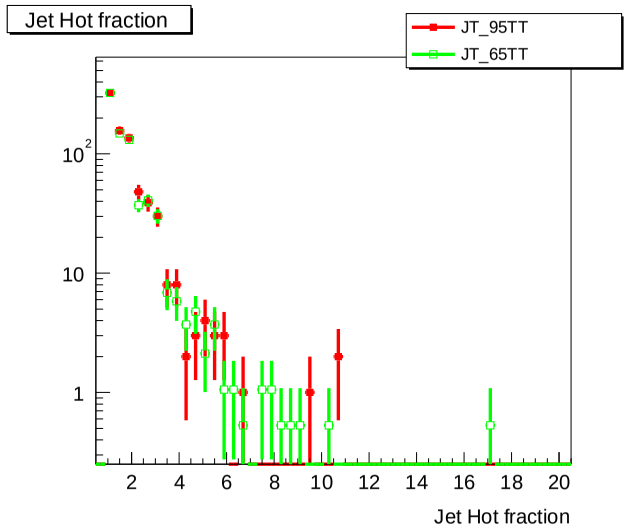
Jet HotF ($|\eta_{jet}| < 1.0$)

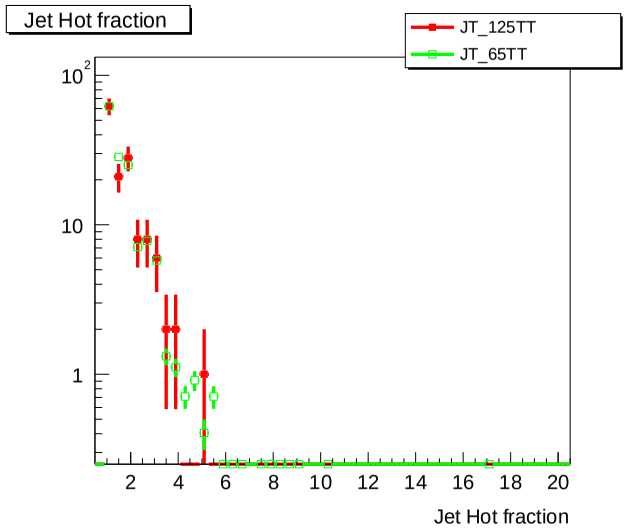




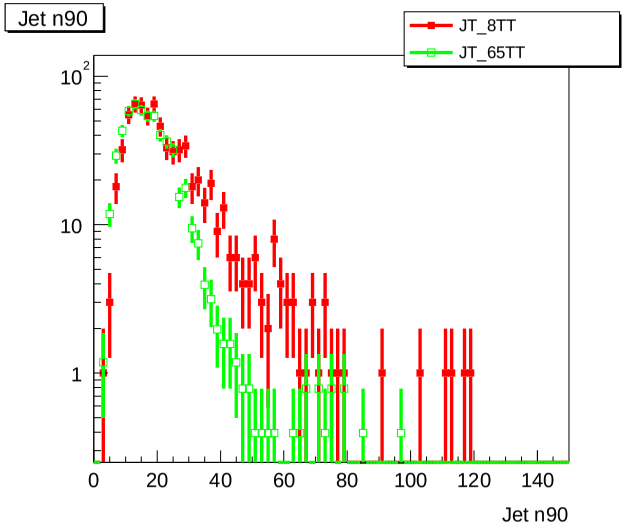


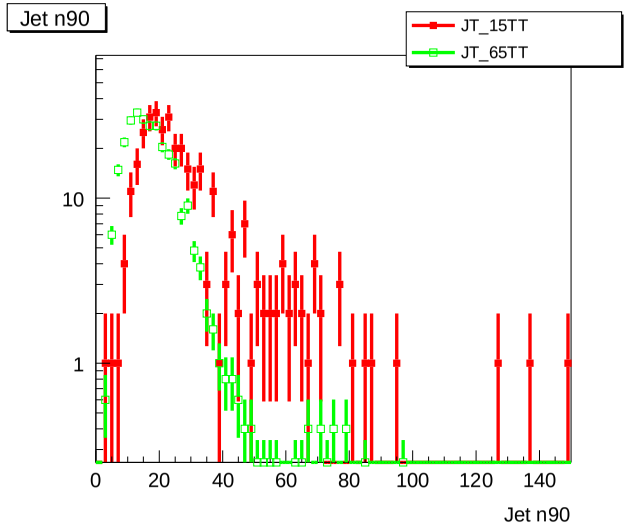


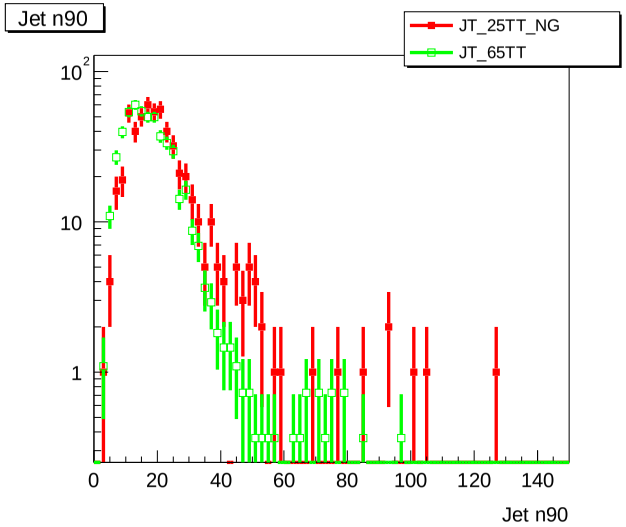


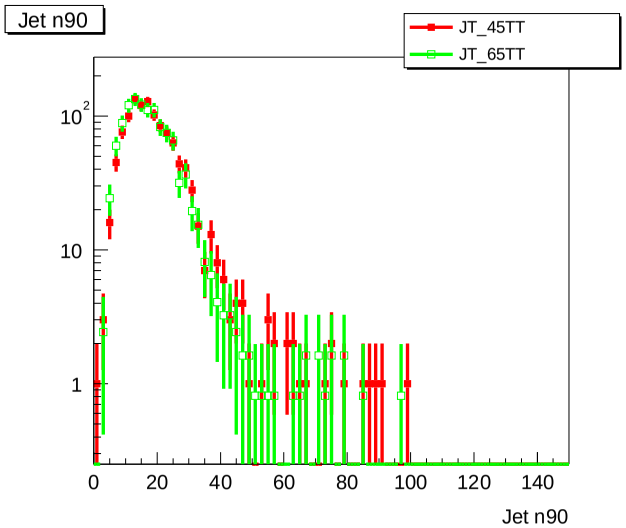


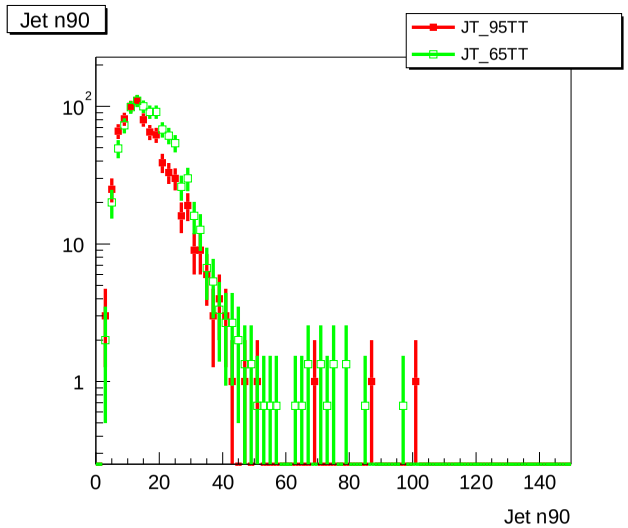
Jet n90 ($|\eta_{jet}| < 1.0$)

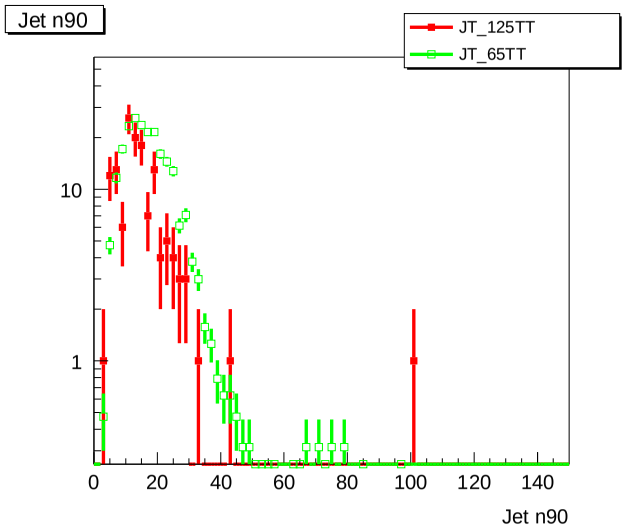




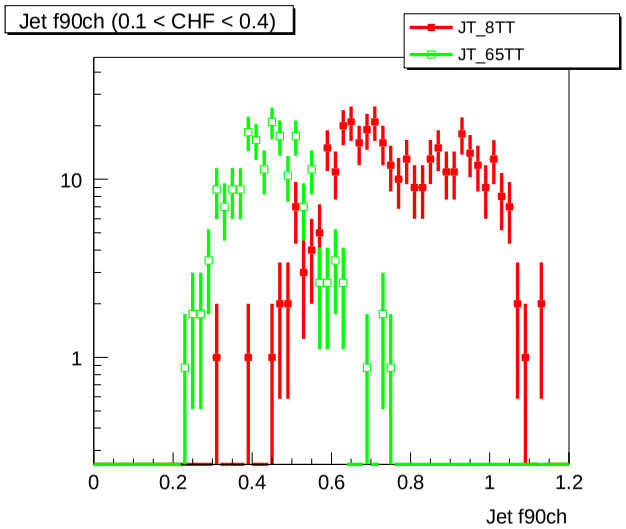


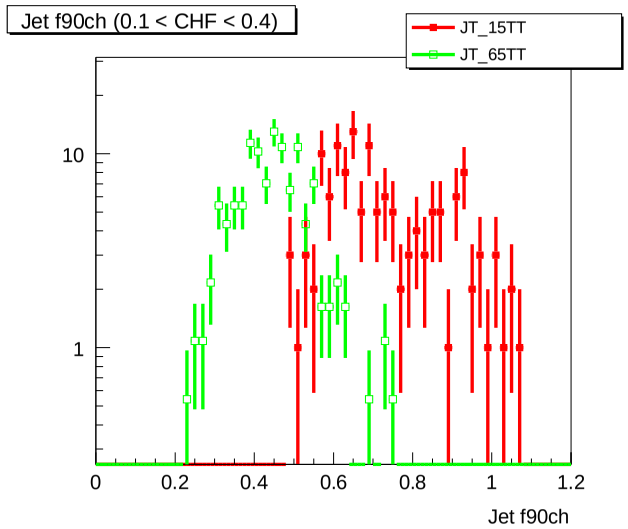


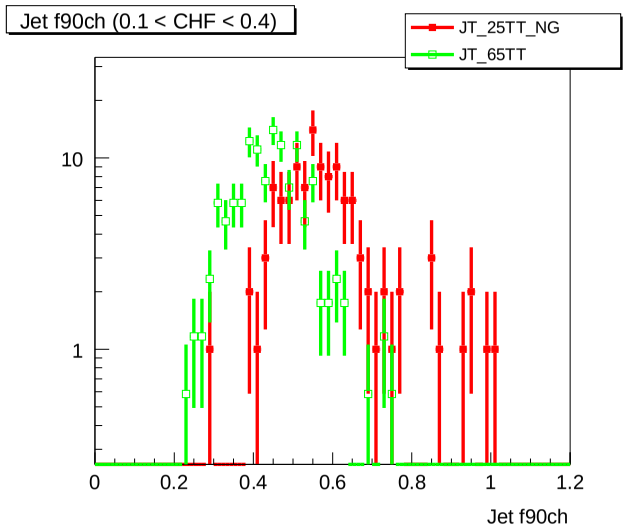


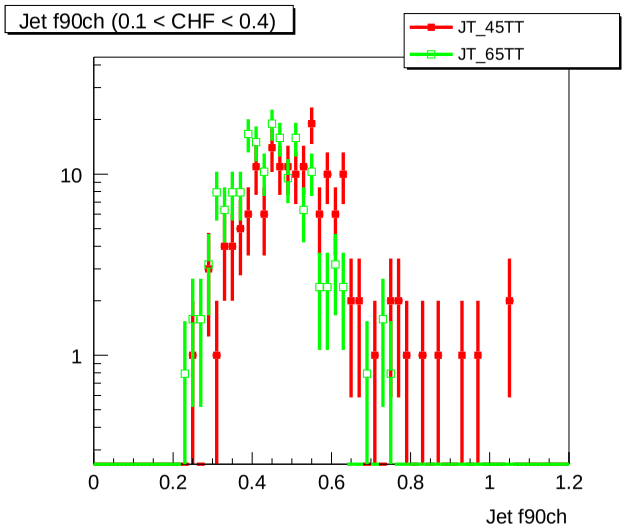


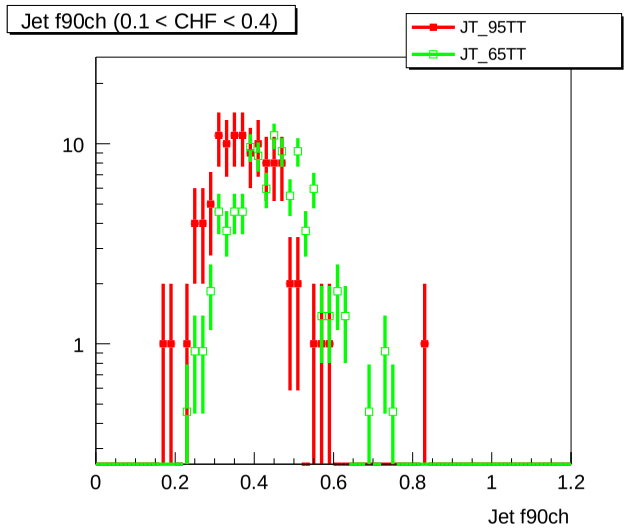
Jet f90ch $(0.1 < CHF < 0.4, |\eta_{jet}| < 1.0)$

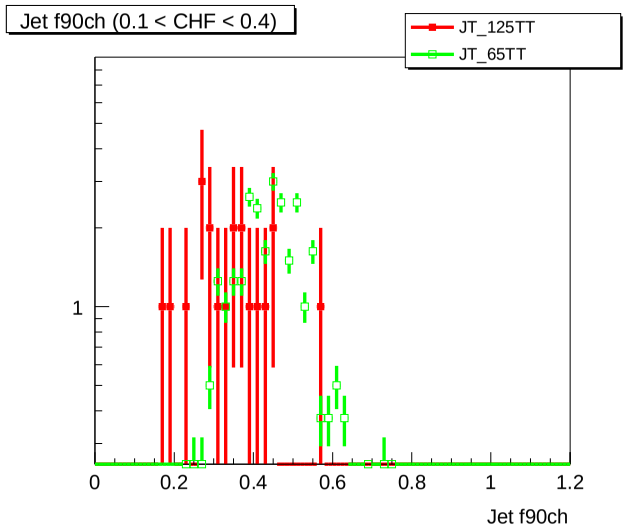
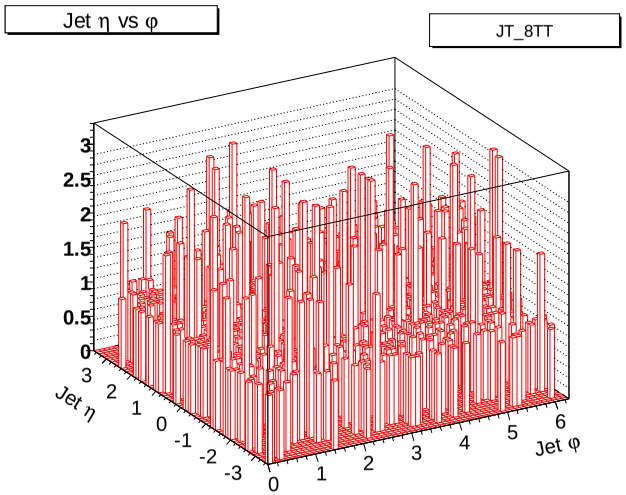
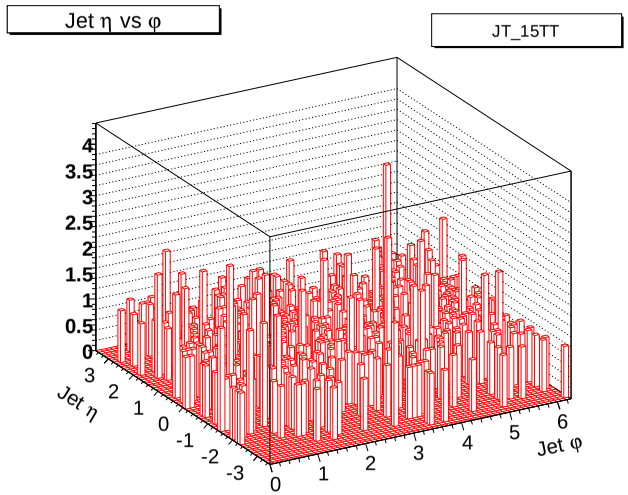
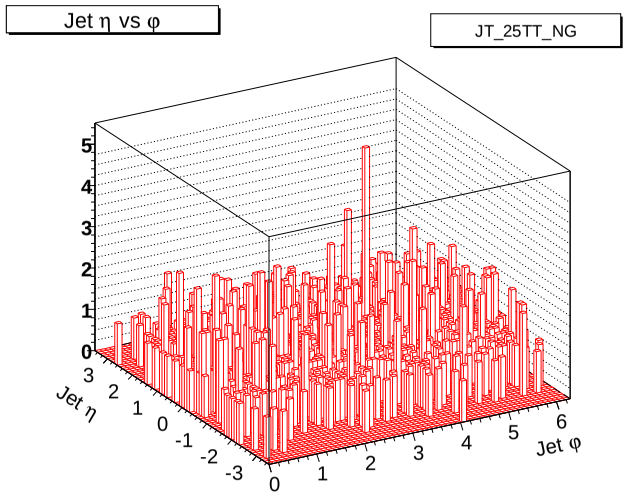
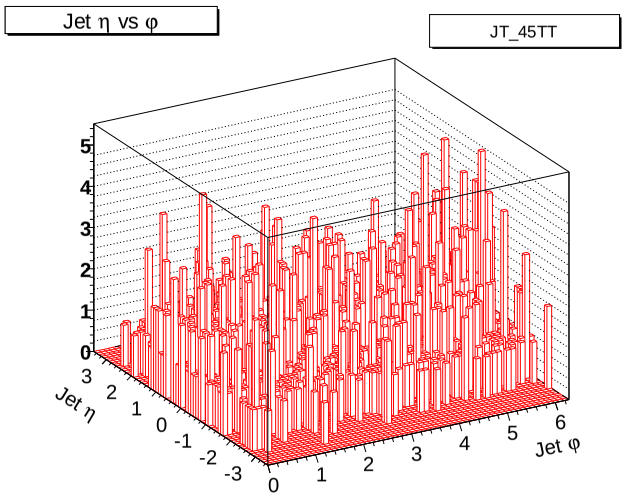
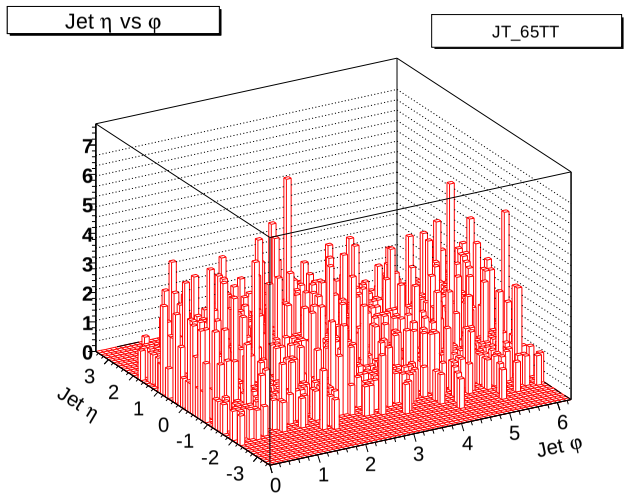
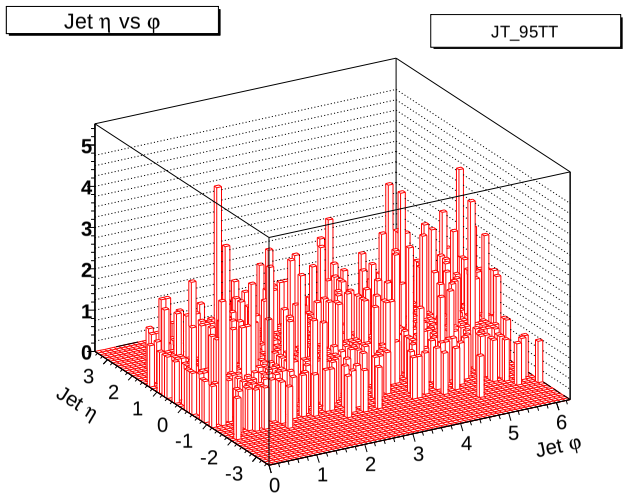












Leading jet η vs φ (after Jet ID cuts)