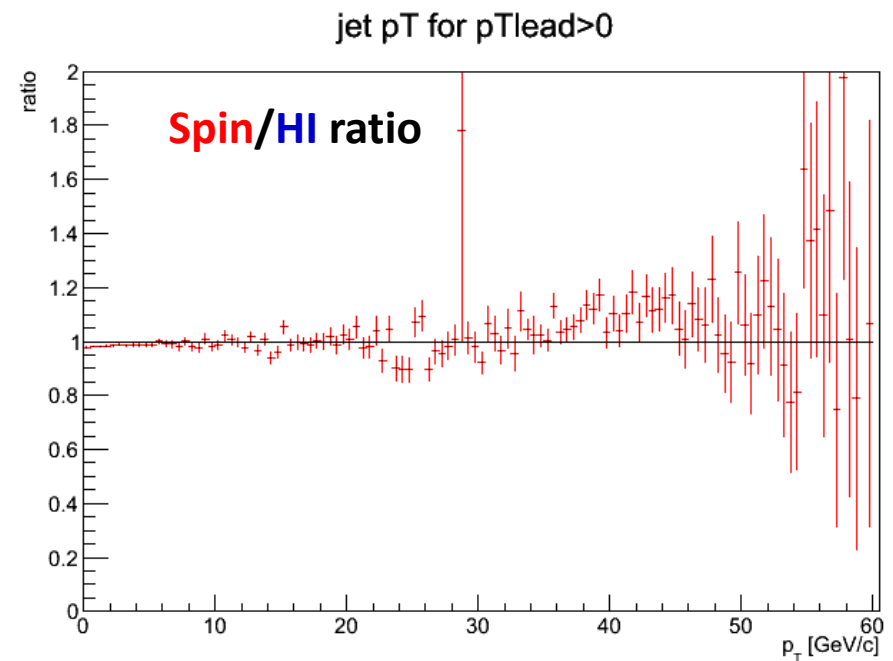
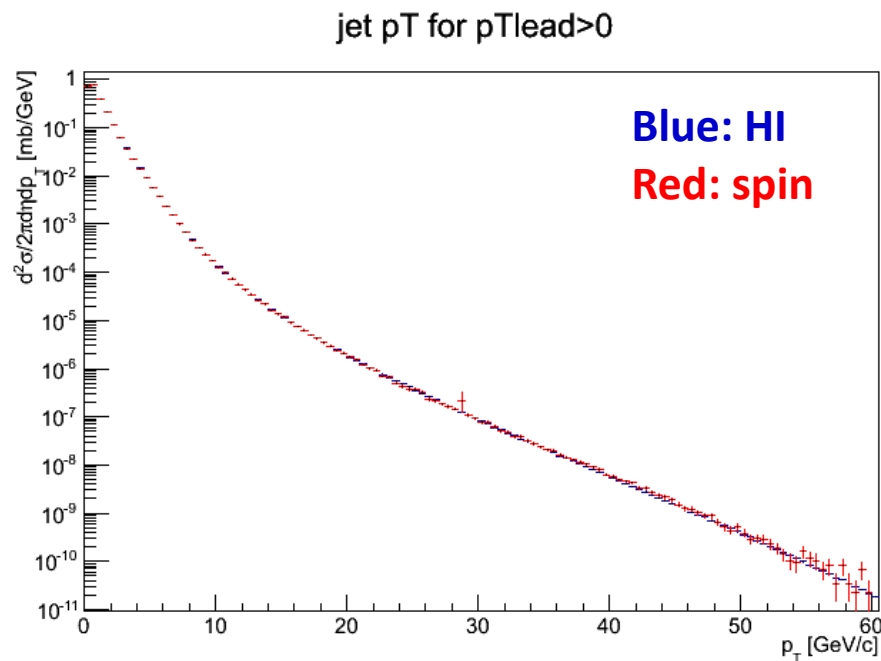


Pythia 6.4.26 Perugia-0 tune vs spin pythia

- Full jet reconstructed from Pythia 6.4.26 Perugia-0 tune and spin pythia, both run with HI code.
- Full jet spectra combined from p_T^{hard} bins > 3 GeV/c.
- Spectra are consistent.



Conclusion on the issue

- The $\sim x2$ difference is mainly due to different tunes in pythia: 6.4.22 default tune (Matt Lamont's pythia data) vs 6.4.26 Perugia-0 tune (spin data). The version difference is small.
- We will use Pythia 6.4.26 with Perugia-0 tune. Issue is resolved.
- Side note: we had run Herwig 6.5.21. It was consistent with Pythia 6.4.22 default tune. There aren't Perugia tunes in Herwig 6.5.21. The consistency may be understandable.