A review of 'Deriving column-integrated thermospheric temperature with the N₂ Lyman–Birge– Hopfield (2,0) band', by C. Cantrall and T. Matuso

General comments

- The technique for determining temperatures from disk LBH emissions that is described in this manuscript represents an important new tool that may enable both further analysis of data from GOLD, but also potentially future instrumentation. The method has several strengths over existing techniques, including not requiring knowledge of the absolute brightness of the emission, not requiring a broad portion of the LBH bands to be sampled, and not requiring the kind of spectral resolution that has underpinned some other techniques. As such, this work should be of great interest to those interested in thermospheric observations, and techniques for analyzing such observations.
- The manuscript includes a good description of the uncertainties, related to instrument wavelength and noise both shot noise and particle noise.
- The detailed description in Section 3 of how the disk temperature should be interpreted as column temperatures is particularly important and as these and similar data utilized by a broader community this kind of consideration is essential.
- The particular case study, utilizing data from multiple spacecraft and centered around a moderate geogmagnetic storm provides a good demonstration of how the temperatures retrieved from the technique introduced here vary under such conditions, and demonstrates their utility to the broader scientific community.

Comments & Errors:

None noted.