Breakout Questions for Sep 24, 2020

1. Recall, mAB = -2.5 log10(fν erg/s/cm2/Hz) – 48.10

Writing mAB = -2.5 log10(fν / fνo ), then what is fνo in erg/s/cm2/Hz?

1. The Space Telescope Science Institute defines its own magnitude:

mST = -2.5 log10 (fλ erg/s/cm2/Å) – 21.10

If mST = -2.5 log10 ( fλ / fλo ), what is fλo ?

1. If mAB = +19 in the *K* band (λ = 2.2 μm) for an object, then
2. Compute fν in erg/s/cm2/Hz at 2.2 μm
3. Compute fλ in erg/s/cm2/Å at 2.2 μm