

Review of revised manuscript by Su et al.

Overall comment:

The manuscript has much improved from the first version I reviewed. However I still have a few concerns that I would like the authors to address.

Overall recommendation:

Publish pending revision.

Major comments:

Beginning of Section 2: you guys still haven't explained why you didn't use the scattering angle differences in your pixel matching algorithm. It's the scattering angle that really matters when comparing VIIRS and MODIS. When you do individual angle thresholds the differences can add up constructively and you end up with a large scattering angle difference, larger than you'd want to have in any case.

Figure 3: Can you please explain the source of the dark blue band of lower insolation around 60 deg. N? That almost looks like some kind of an artifact. Based on that banding artifact, your discussion on Page 8 that TOA fluxes track insolation differences is not valid. The TOA fluxes do not display any banding at 60 deg. N.

Minor comments:

Line 14: "... the imagers sharing the spacecraft with CERES-NPP... ."

Line 91: reference for the IGBP dataset?

Line 98: Do you mean "VIIRS"? If not, please expand what VIRS stands for.

Line 200: "... to be applicable to the VIIRS observations...."

Line 207: "... was generated "

Line 245: "... except for small differences ... "

Line 365: "... the imagers sharing the spacecraft ... " They are mounted together, not flying in a constellation

Line 386: "... five years" no dash