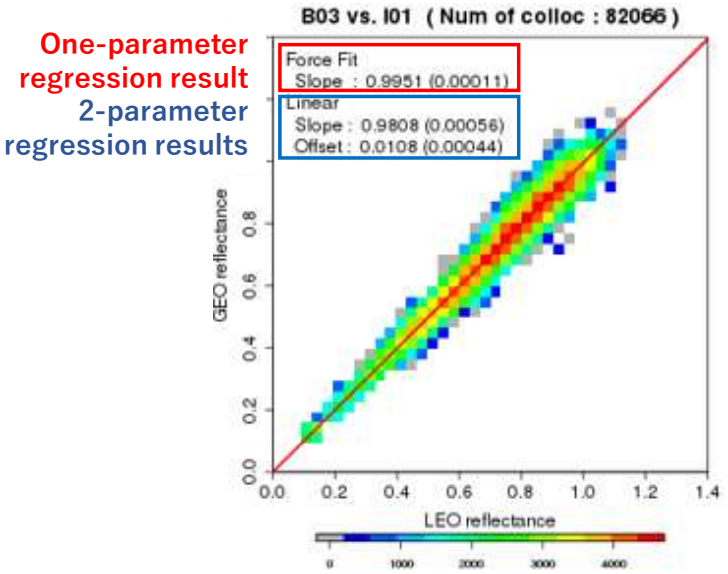
1. You used 2-parameter regression. Have you considered one-parameter regression and, if so, why do you choose 2-parameter regression?

- Currently, we use one-parameter regression (linear regression without offset) and 2-parameter regression. These results are shown on web site, because we are not sure which regression type is better. If you have any ideas about this, please advise us.



*Regression line shown on scatter plot is in case of one-parameter regression.

2. You used average. Have you considered subsampling and, if so, why do you choose average?

- Yes, we use AHI dataset resampled to 2km resolution. I have not considered subsampling yet.
- In the moment, to handle easier in our implementation, we use the average of VIIRS pixels. Therefore, we use AHI averaged data same as VIIRS.
- According to Fangfang's presentation, you use sub-sampled ABI data in NOAA's ray-matching implementation. Are there more advantages of subsampled data than resampled data?

3. Why did you choose cold scenes only? Have you tried to include warm scenes as well?

- We found some outliers in warm scenes like Fig.1. Although we are not sure why there are outliers, we considered it is better that these outliers are not used for the validation.
- So, we limit to cold scenes by threshold of 273K. By applying threshold, we get the result like Fig.2.

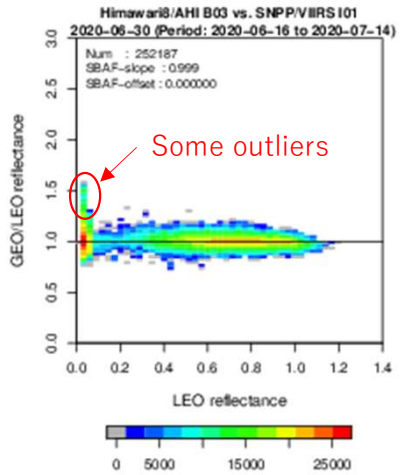


Fig.1. Ray-matching in All scenes (without TB condition)

Apply threshold of 273K

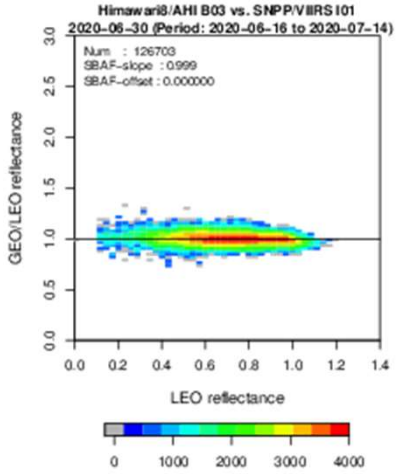


Fig.2. Ray-matching in cold scenes (with TB condition of 273K)

3. How did you choose the threshold of 273 K?

- Although we use threshold of 273K to remove outliers like Fig.1, I'm not sure that 273K is best threshold. Because I have not investigated threshold more than 273K yet.
- On the other hand, I briefly have checked dependence on BT threshold in less than 273K. (see Fig.3)
- Fig.3 shows monthly slope is stable at around 273 K. So, I think 273K is not wrong threshold although I'm not sure 273K is best.

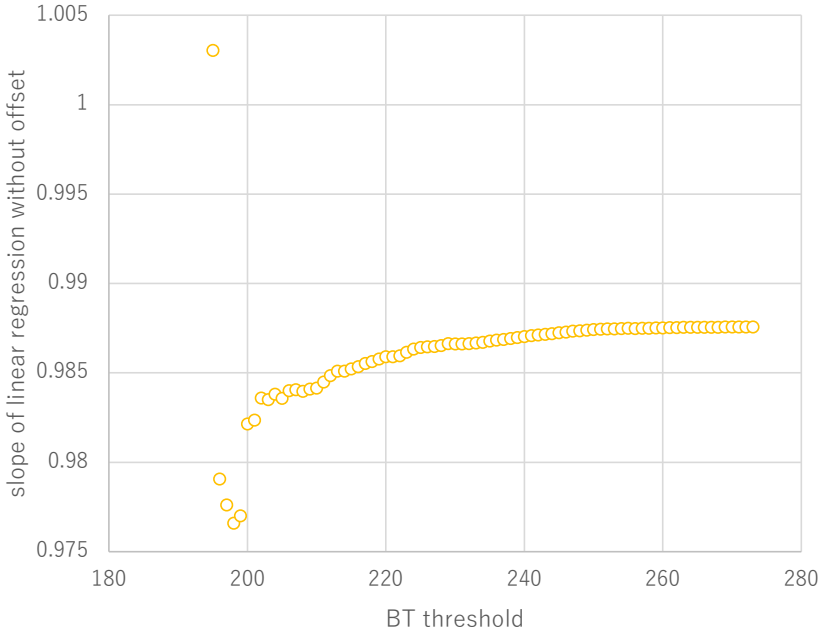


Fig.3: AHI B01 slope values for each BT threshold (<273K) in June 2021

Additional question from my side.

Following is question from my side. I hope you let me know.

Q: How do you get ABI B6(2.3um) SBAF?

- Fangfang's presentation points out that you use SBAFs derived from SCAMACHY linear fitting in NOAA's ray-matching implementation. But, in B6(2.3um), we cannot use NASA SBAF tool because SCAMACHY is out of range, I think. In JMA, we derive B6 SBAF of AHI by calculating radiative transfer model. How do you derive B6 SBAF of ABI?