Overview

The flare chosen was C9 class flare with the peak occurring at 16:22 on 2015/3/11. For the baseline correction, the group added a threshold to the data to leave out mini flares that occurred slightly before the main flare that they were looking at. They zoomed in on the data 350 minutes before the flare began, implementing the threshold and finding the average of this data gave them their baseline. Subtracting the baseline from the original data, the group then used the integrate.trapz() function to calculate the area under the curve, giving the total energy of the flare which was reported as 8.832E+27.

Merits

This group chose a challenging and interesting flare that they would have to manipulate in order to properly report their data. They included plenty of data on either side of the flare, ensuring they didn't cut it off at any point, but when integrating they made sure to zoom in only on the main flare they were looking at. The bounds for the baseline and the integration were chosen well, even though the method of zooming in on the beginning and end of the flare to get a closer look might not have been used. The code is neat and organized and produces reasonable results.

Critiques

Some more information about the flare in Task 2 would be helpful to understand exactly what we are looking at here. The code can be difficult to follow since you are adjusting the data without specifically saying what you are doing and why. More comments in the code will help with this. In particular, when doing the baseline correction, the threshold is added with no explanation of why. Including a comment about needing to leave out the mini flares that occur in that time would make it much more clear what is being done in this step. Additionally, writing in the markdown cells above the code blocks would make it easier for the reader to understand what will be done in that section before they even get to the code. Showing the baseline on your plot in the baseline correction section would help the reader visualize it.

Overall Recommendation

	No revisions are needed
X	Needs minor revisions

	Needs major revisions

Conclusions

The flare chosen was interesting and complex, and the code used to analyze it was well written and concise. The code was also difficult to follow at times, which can be fixed with more comments in the code and explanations in the markdown cells. Overall, I believe there are minor revisions needed to make the code easier to follow, and some more descriptions of the flare in the beginning will help as well. I don’t think there are many revisions needed to the code itself, other than maybe adding more visuals.