

Atmos. Meas. Tech. Discuss., referee comment RC2  
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## Comment on amt-2021-405

Anonymous Referee #2

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Referee comment on "Identification of tropical cyclones via deep convolutional neural network based on satellite cloud images" by Biao Tong et al., Atmos. Meas. Tech. Discuss., <https://doi.org/10.5194/amt-2021-405-RC2>, 2022

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General comments:

In this study, a deep convolutional neural network (DCNN) is adopted to identify TC satellite images. Efforts are also made to explore how the DCNN models work internally. Overall, the work is interesting and the manuscript is well written, with analyses and discussions presented comprehensively and reasonably. I think this is a good piece of work that contributes to TC studies. I have only some minor comments which are given below. It is suggested the article be accepted after minor revision.

Specific Comments:

- Line 24: ever—every
- The authors claim that the normalization of image pixel values can accelerate the convergence of the model. Why?
- Please explain a little more about the Dropout layer
- Results of the evolutionary curve in Figure 5(b) suggest that the training accuracy is not improved consistently with the increase of training epochs. When will you stop the training process then?
- The authors present many heat maps of TC images. How about those of non-TC images? Are there any typical differences between these two types of heat maps?