

Review of “Some Issues in Uncertainty Quantification and Parameter Tuning: A Case Study of Convective Parameterization Scheme in the WRF Regional Climate Model” by Yang et al.

In general, this manuscript is very well written and organized. I have following specific comments:

### Content

- Is that possible to describe the physical meanings of the parameters used for adjustment?
- They find wet biases and determine that most precipitation is convective; thus, assumes that the error within WRF is due to cumulus parameterization. Through the adjustments of those parameters in the KF scheme, the simulated precipitation is significantly improved. Can similar adjustments be used in the other cumulus schemes?
- Why were the particular ranges of values for the 5 parameters selected (section 2.1, table 1)?
- No mention of going from 25km to 12km in the methods section.
- Not clearly stated that UW data used for MVFSA technique (bottom of page 31780).
- Not clear as to whether output is 25km or 12km (Figures and Tables).

### Grammar

- Line 13 of page 31774 should be revised. Not clear. Should read something like “magnitude and intensity of precipitation.”
- Paragraph that starts on line 8 on page 31774 contains very long run-on sentence. Consider breaking apart.
- End of aforementioned paragraph contains sentence fragments.
- I would remove the first sentence on line 6 of page 31775 (not absolutely necessary).
- Paragraph at the end of page 31776/beginning of page 31777 could be clarified.