I thank the authors for responding to and incorporating reviewer suggestions while revising the manuscript. Clarity has been improved and the manuscript reads very well. I have only one major comment and minor comments that should be addressed; otherwise, this manuscript is in good shape and I would recommend it for publication after a minor revision.

Major Comments

Line 98 – The authors state that they could not evaluate Eta or Morrison microphysics due to a requirement of higher resolution; however, microphysics parameterization is necessary at all NWP resolutions, and these schemes can certainly be run at coarser scales than convection-allowing resolutions (for instance, the Eta scheme is run in the NAM model). Note that the WRF documentation states that different Eta microphysics settings should be chosen based on resolution, not that the Eta scheme shouldn't be used at all for specific resolutions:

"e. Eta microphysics: The operational microphysics in NCEP models. A simple efficient scheme with diagnostic mixed-phase processes. For fine resolutions (< 5 km) use options (5) and for coarse resolutions use option (95)."

Please consider revising this text.

Minor Comments

Line 39 – I would define what specific physics combination results in biased predictions of insolation over Germany, as this is most likely a physics-related problem

Line 63 – Please define a value or range for "moderate resolution"

Line 96 – A reference to Figure 2 here would be helpful.

Line 97 – "uneven spacing near the boundary layer" – Are the first eleven vertical layers more concentrated near the surface?

Line 100 – The reference to the Stergiou et al. (2017) paper may be better suited for the results section where it can be compared to the findings from this manuscript.

Line 189 – "applied to the simulation" – used as initial conditions?

Figure 5 – The caption should say "different PBL configuration"

Line 276 – Ukrain -> Ukraine

Figure 11 (and others) – Units appear to be missing for some axis titles

Line 306 – …the Goddard scheme works best…?

Line 309 – “different microphysics” – it would be good to specify which.

Figure 18 – X-axis title should by “Month of Year”

Line 407 – “insufficiencient”

Line 424 – “…comprehensive insights into **other** spatial scales, **other** meteorological variables, further physics configurations…”