

The authors investigate the intrinsic dynamics of the solar incident flux as a function of wavelengths in ultraviolet and visible spectrum. They apply the Planck formula and focus on the detrended solar incident flux data (deviations from a pure black body spectrum). By employing various methods of data analysis like maximum entropy method, detrending fluctuation analysis and Haar fluctuation analysis, they show that the fluctuations of the spectral solar incident flux exhibit $1/f$ scaling dynamics. The results obtained are valuable and important for climate dynamics. The topic of the paper is within the scope of the “Atmospheric Chemistry and Physics” journal. I recommend it for publication in ACPD after a few technical corrections have been addressed.

Technical corrections:

- 1) Line 16: I think it is “exhibits”. The same in page 7, line 158.
- 2) Line 84: Remove the parenthesis in “Fig. 1a”.
- 3) Line 170: I think it should be “0.99 (± 0.08)”. The same in line 321.
- 4) Line 175: Is it “1.09 (± 0.04)”?
- 5) Line 202: The same as before. Is it “0.91 (± 0.08)” and 1.20 (± 0.09)?
- 6) Line 213: Is it “but the fluctuations” or “but its fluctuations”?
- 7) Line 219: I also think it should be “0.99 (± 0.08)”, “1.09 (± 0.04)”.