This paper presents an interesting study on the assessment of two solar activity EUV proxies for long term studies, F10.7 and F30, but it is incomplete and a couple of essential points are not discussed and quantified.
In your paper you do not discuss the problems in the Nobeyama data and their degraded quality since 2020. There are many outages and data problems since 2020 as can be seen on their website (http://solar.nro.nao.ac.jp/norp/html/ObsLogFrom2020.html). Since you are presenting small drifts, it is very important to take into account the quality (see Fig_f30p-vs-c_cycle23; the precision given in the CLS data file) and stability of the instrument calibration. There actually is a detailed paper on that for F10.7, but not for F30.

I miss a discussion of the CLS radio flux data file, which contains interpolated values in case of gaps or outliers (the flags are explained in the header of the CLS data file; see figures Fig_f30f_2023 and Fig_f30f_2019 with long periods with interpolated F30), and what consequences that may have for your study.

You have used the conversion formula from the Yaya et al. 2017 paper (Dudok de Wit and Bruinsma, 2014 is erroneously given as reference), which is based on a regression from 1970-2014. Why have you not done your own regression? Because the period has a big impact on the regression parameters, and therefore certainly on your results via EUVAC. Do your results and conclusions change when you use other regression parameters? (see the regression results in figure Fig_f30c-f107c_linreg)

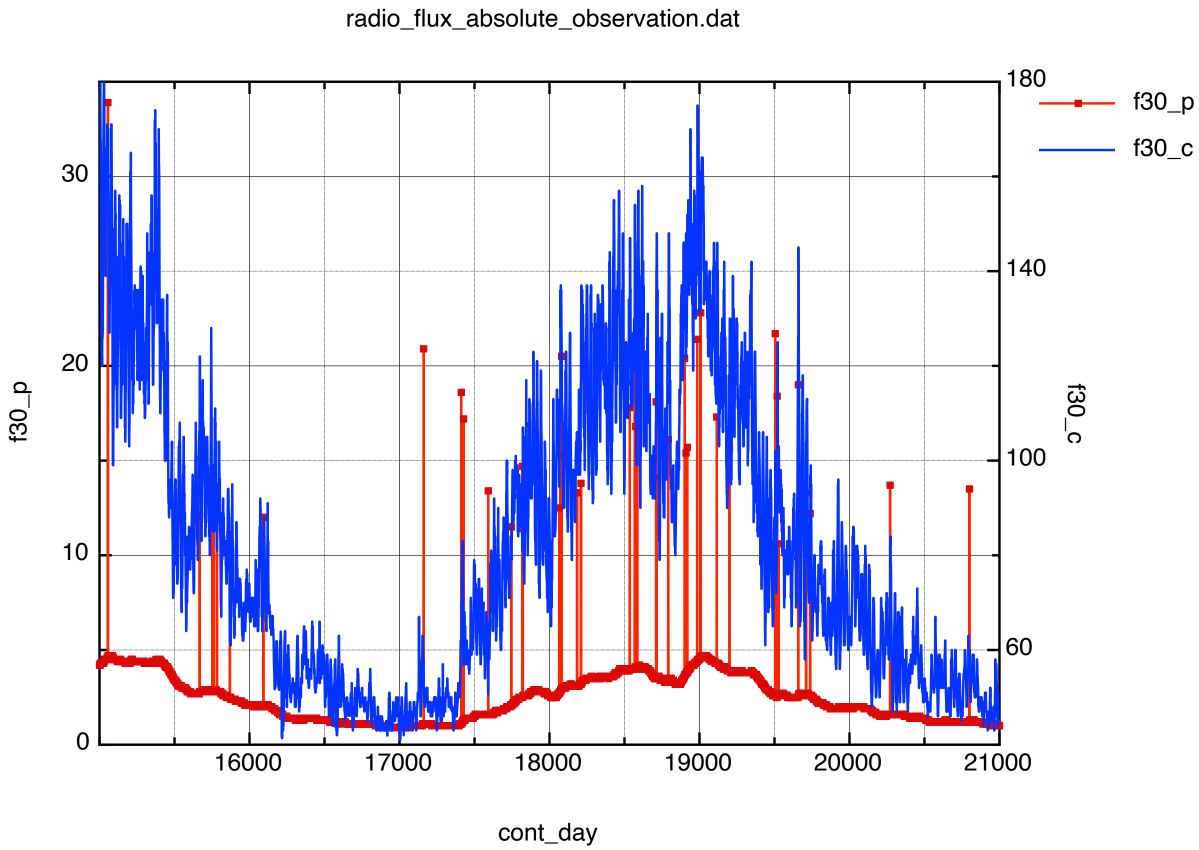
There is also the question of instrument change, which may partly contribute to the difference, but which is not discussed in the paper:

Observations of the 10.7 cm flux have been made routinely by radio telescopes at Ottawa from 14 February 1947 until 31 May 1991, and thereafter by a similar set of instruments at Penticton.

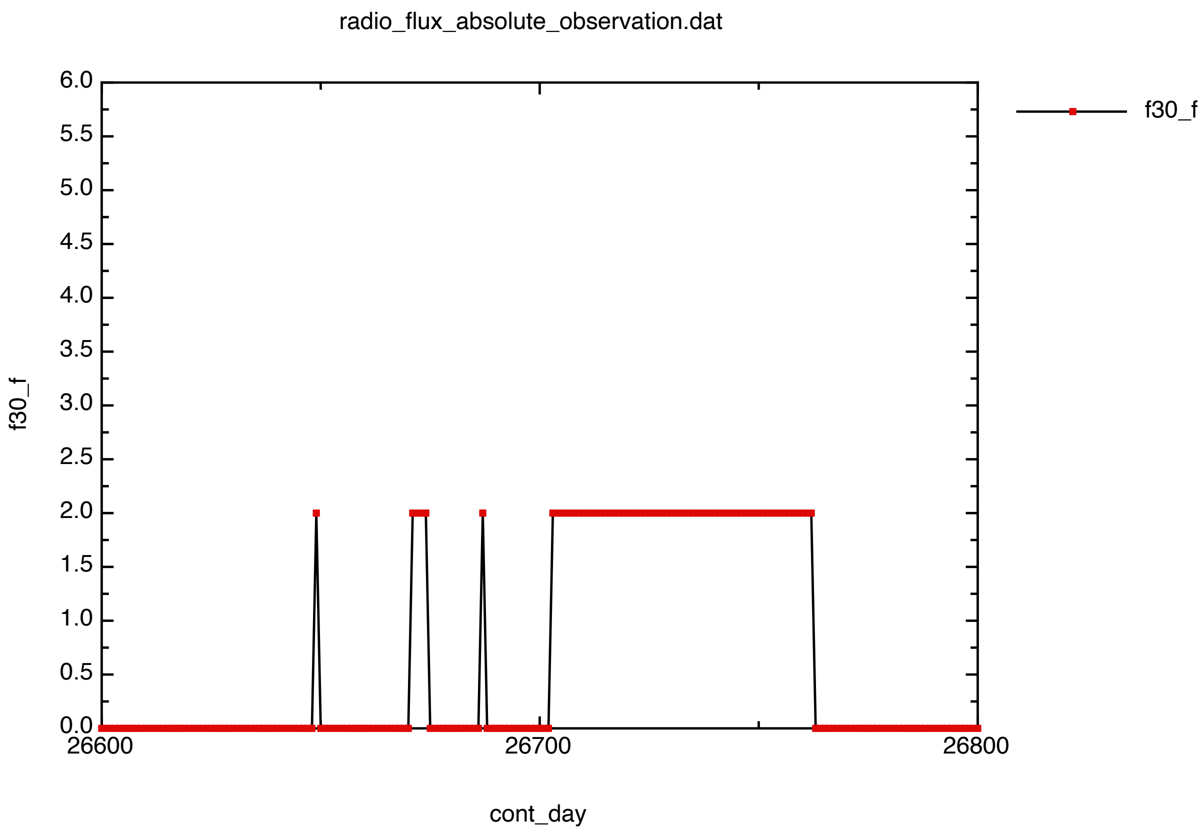
Observations began on 6 November 1951 in Toyokawa at 8 cm, see Table 1. From 24 February 1994 to 14 May 1994, all but the observations at 8 cm were interrupted as the antennas were moved from their location at Toyokawa to nearby Nobeyama.

Figure 2: max in 1970 and 2012 are better with F10.7. F30 leads to too small densities in 1970, and too high in 2012. This drift in F30 has been detected and corrected in the DTM2020 paper (Bruinsma and Boniface, 2021). Calculation of DTM2020 density ratios with F10.7 and F30 and TLE densities at 250 km showed no trends, not with F10.7 nor with F30. Another point concerns thermosphere cooling due to increasing CO_2 levels, which leads to lower densities mostly notable at solar minimum (decrease estimated at 2-5% per decade). That effect will also lead to a drift in the density ratios depending on how accurate your model takes that into account.

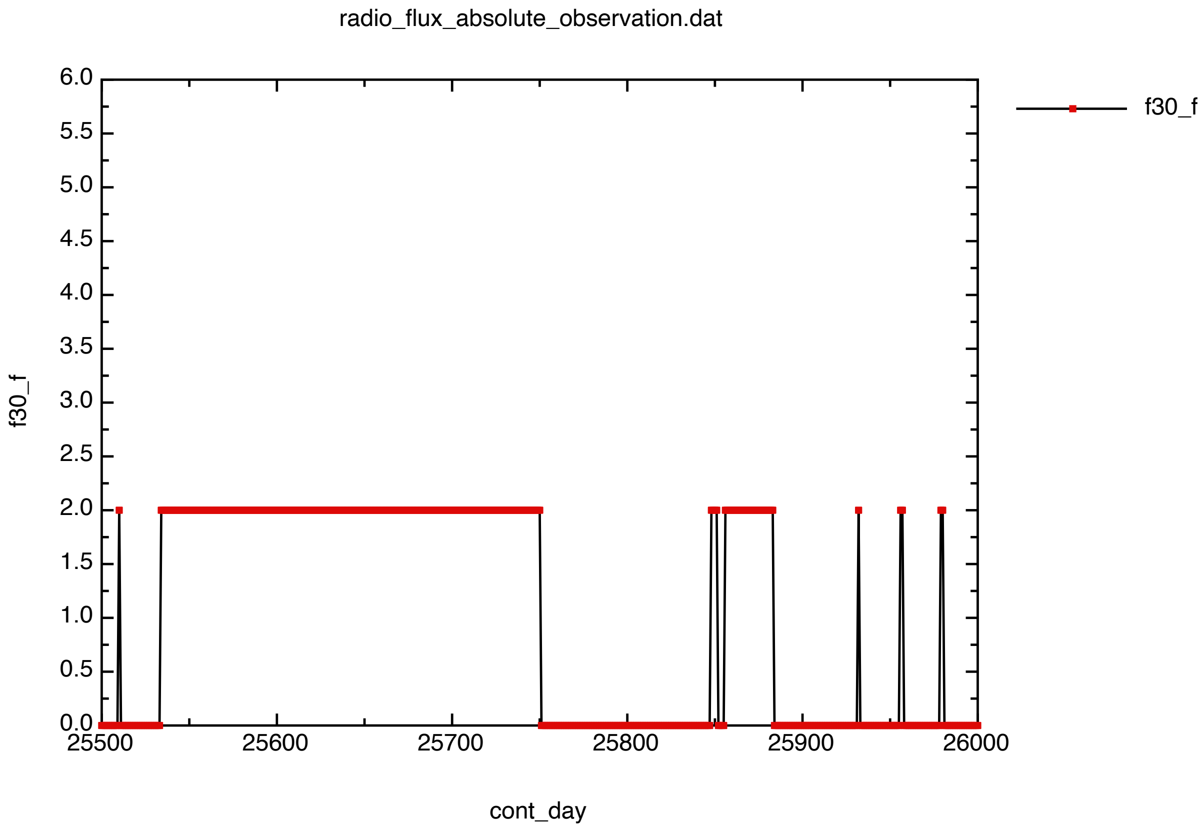
All points above should be discussed and clarified, and I therefore recommend moderate revision.



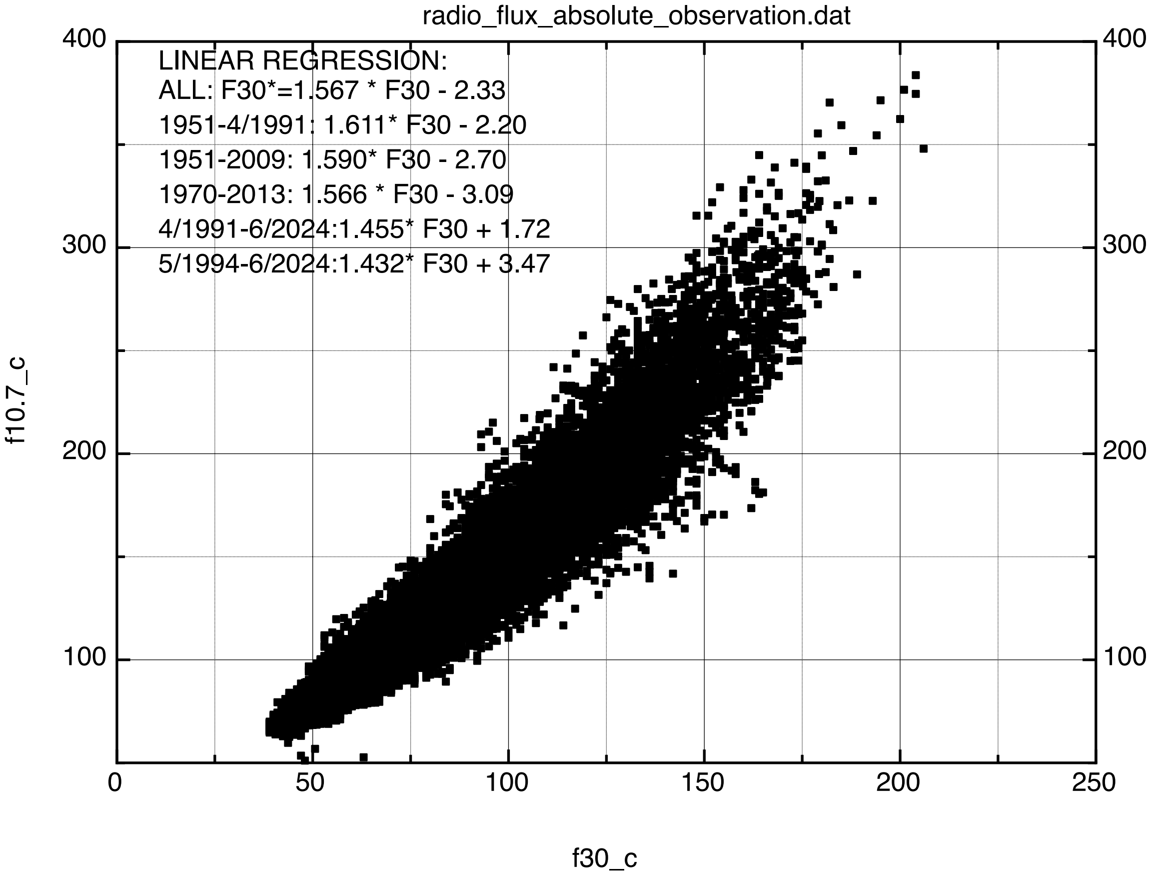
Fig_f30c-f107c_linreg



Fig_f30f_2023



Fig_f30f_2019



Fig_f30c-f107c_linreg