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Erratum: X-ray properties of $z \gtrsim 6.5$ quasars

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Table 1. Corrected values of α_{ox} after converting the 2500 Å; flux in the rest-frame.

Object	α_{ox}
VDES J0020−3653	-1.72 ± 0.14
VDES J0244−5008	-1.55
VDES J0224−4711	-1.61 ± 0.07
VIK J0109−3047	-1.28
PSO J338+29	-1.54
PSO J159−02	-1.54 ± 0.06
VIK J0305−3150	-1.56
PSO J036+03	-1.80 ± 0.13
CFHQS J0210−0456	-1.16

The paper 'X-ray properties of $z \gtrsim 6.5$ quasars' was published in MNRAS, 491, 3884−3890 (2020). After publication of the paper, an error on the computation of the optical to X-ray slope ($\alpha_{ox} = 0.3838 \times \log(f_{2\,keV}/f_{2500\,Å})$) presented in table 4, right panel of figs 4 and 5 was discovered. The values of α_{ox} were underestimated due to the fact that the UV flux $f_{2500\,Å}$ was not converted to the rest-frame.

This correction do not change the conclusion of the paper but the new values of α_{ox} (listed in Table 1) are in better agreement with the known $\alpha_{ox} - L_{2500}$ anti-correlation (see Fig. 1), strengthening the conclusion. Also as find before in the original paper we do not observe any obvious evolution of α_{ox} with redshift (see Fig. 2; top panel), especially when correcting for the effect of the luminosity (see Fig. 2; bottom panel).

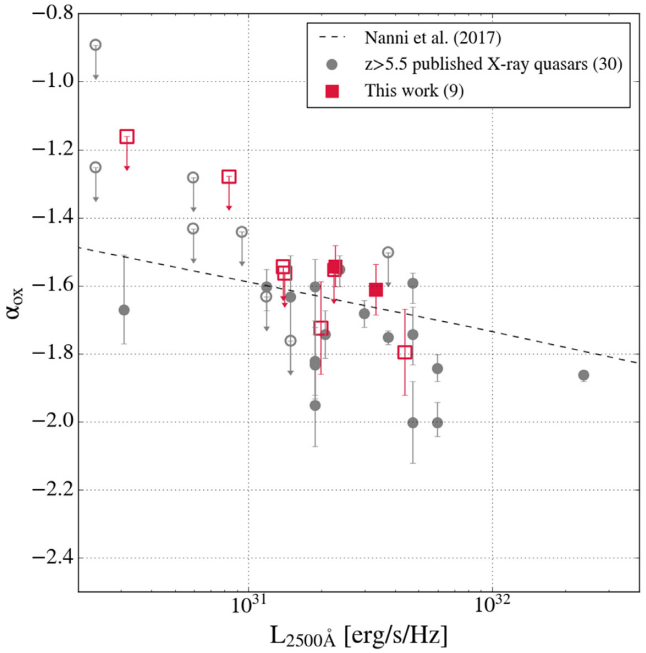

Figure 1. Correlation between the optical-to-X-ray slope α_{ox} and the luminosity at the rest-frame $\lambda = 2500$ Å ($L_{2500\,Å}$). The dashed line corresponds to the best fit relation from Nanni et al. (2017), and the quasars from this work are completely consistent with this expectation.

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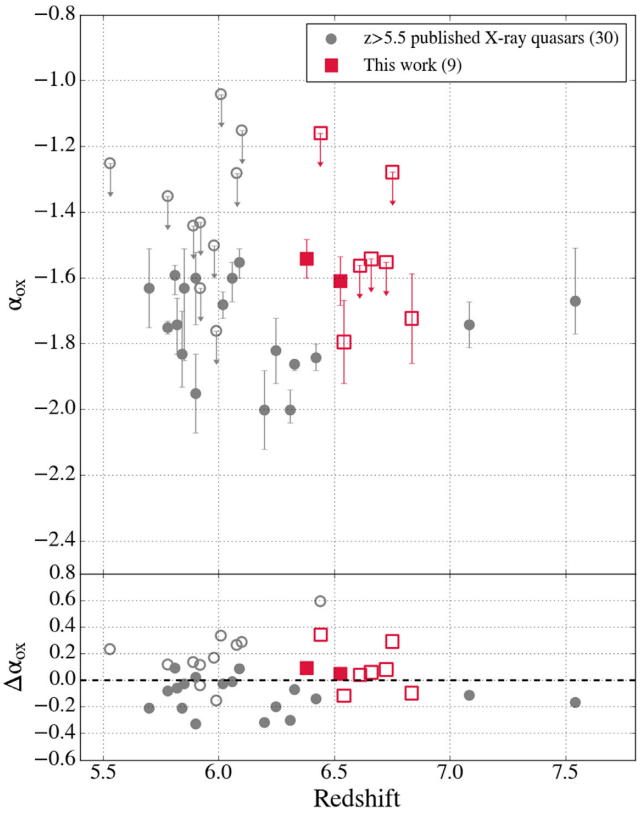

Figure 2. Top panel: Optical-to-X-ray slope α_{ox} versus redshift. Bottom panel: Difference between the computed α_{ox} and the predicted α_{ox} from $L_{2500\,\text{Å}}$ using the correlation by Nanni et al. (2017) ($\Delta\alpha_{ox}$). We do not observe obvious correlation between α_{ox} and the redshift as stated by previous works.

ACKNOWLEDGEMENT

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REFERENCE

Nanni R., Vignali C., Gilli R., Moretti A., Brandt W. N., 2017, A&A, 603, A128

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