

ENSEMBLE QUASAR SPECTRAL VARIABILITY FROM THE XMM-NEWTON SERENDIPITOUS SOURCE CATALOGUE

R.Serafinelli

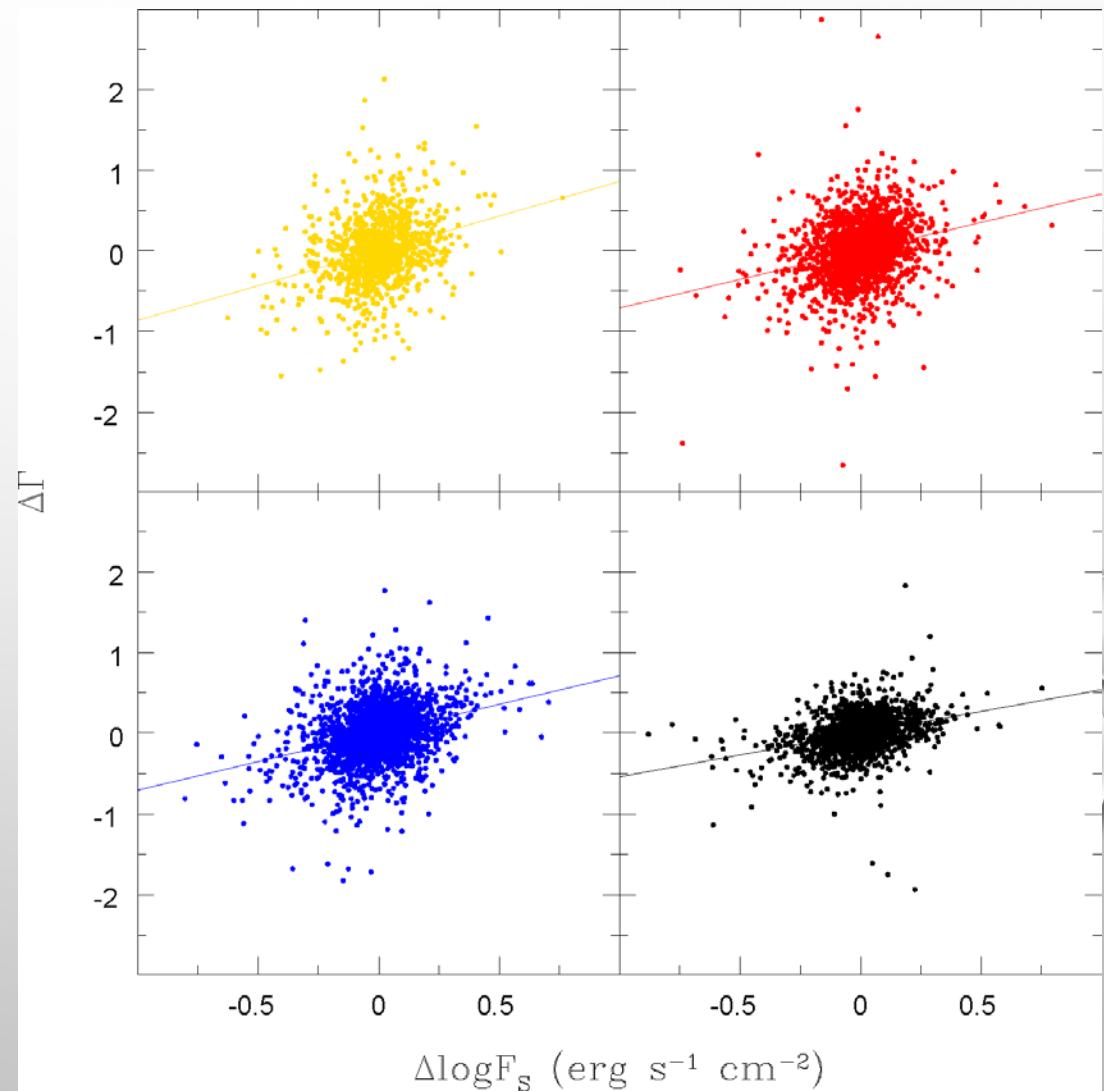
Università di Roma "Tor Vergata"



We investigated the X-ray spectral variability of a sample of 2,700 sources (MEXSAS catalogue, Vagnetti et al, 2016) by mean of the spectral variability parameter β (Trevese and Vagnetti, 2002)

$$\beta = -\frac{d\Gamma}{d(\log F)}$$

We obtained an ensemble spectral variability parameter of $\beta = -0.69 \pm 0.03$, extending to quasars the result that the X-ray spectral variability has a softer when brighter trend.



ENSEMBLE QUASAR SPECTRAL VARIABILITY FROM THE XMM-NEWTON SERENDIPITOUS SOURCE CATALOGUE

R.Serafinelli

Università di Roma "Tor Vergata"



No dependence of β on either black hole mass, Eddington ratio, X-ray luminosity or redshift was found, although some bins have spectral variability parameters that differ significantly from the ensemble value.

We computed β for the nine sources with the most significant correlations. The values range from $\beta = -3.54 \pm 0.54$ to $\beta = -0.62 \pm 0.08$.

