X-ray timing and spectral analysis of reverberating active galactic nuclei

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List of Tables

List of Figures

Table 1: The best spectral fits for AGN groups computed to 90% confidence, outlining the model flux (2-10 keV erg cm^{-2} s^{-1}), photon index Γ, ionisation $\log \xi$ (erg cm s^{-1}), iron abundance $A_{\rm Fe}$ (solar), reflection fraction RF, disk inclination i (deg) and the covering fraction (if applied).

Source	Group	F_{2-10} kev	$\Gamma_{\tt Relxill}$	$\log \xi$	AF_e	RF	i	Cvr Frac
1H0707-495	Combined	9.27×10^{-13}	$3.38^{+0.02}_{-0.02}$	$2.43^{+0.03}_{-0.03}$	$0.50^{+0.03}_{-0.15}$	$2.14^{+0.15}_{-0.15}$	$74.90^{+0.99}_{-1.52}$	$0.65^{+0.02}_{-0.02}$
	hi	1.04×10^{-12}	$3.40^{+0.00}_{-0.02}$	$2.44^{+0.08}_{-0.00}$	$0.50^{+0.04}_{-0.00}$	$2.13^{+0.15}_{-0.14}$	$76.68^{+0.69}_{-1.04}$	$0.63^{+0.01}_{-0.01}$
	hi cts s^{-1}	1.02×10^{-12}	$3.40^{+0.00}_{-0.02}$	$2.56^{+0.08}_{-0.08}$	$0.50^{+0.10}_{-0.00}$	$2.16^{+0.15}_{-0.14}$	$80.00^{+0.00}_{-0.70}$	$0.65^{+0.02}_{-0.02}$
	med	5.58×10^{-13}	$2.80^{+0.14}_{-0.34}$	$3.58^{+0.16}_{-0.32}$	$10.00^{+0.00}_{-1.64}$	$4.98^{+3.30}_{-2.70}$	$76.10^{+1.09}_{-0.57}$	$0.83^{+0.03}_{-0.16}$
	lo	2.99×10^{-13}	$2.73^{+0.12}_{-0.16}$	$2.85^{+0.18}_{-0.15}$	$9.59^{+0.41}_{-0.49}$	$9.95^{+0.05}_{-4.98}$	$80.00^{+0.00}_{-2.99}$	$0.95^{+0.00}_{-0.01}$
	lo cts s^{-1}	3.28×10^{-13}	$2.95^{+0.35}_{-0.29}$	$0.87^{+0.57}_{-0.29}$	$10.00^{+0.00}_{-6.01}$	$7.31^{+2.69}_{-3.85}$	$80.00^{+0.00}_{-3.18}$	$0.63^{+0.16}_{-0.00}$
Ark 564	Combined	1.87×10^{-11}	$2.36^{+0.06}_{-0.25}$	$1.30^{+0.40}_{-0.29}$	$4.99^{+5.01}_{-2.02}$	$0.64^{+0.44}_{-0.26}$	$75.60^{+1.81}_{-1.76}$	–
	hi	1.92×10^{-11}	$2.31^{+0.01}_{-0.04}$	$3.65^{+0.12}_{-0.29}$	$10.00^{+0.00}_{-2.61}$	$0.05^{+0.24}_{-0.01}$	$22.10^{+22.40}_{-21.40}$	–
	lo	1.09×10^{-11}	$2.25^{+0.09}_{-0.09}$	$3.48^{+0.20}_{-1.37}$	$0.50^{+0.41}_{-0.00}$	$8.69^{+1.31}_{-7.09}$	$80.00^{+0.00}_{-12.40}$	–
IRAS 13224-3809	Combined	6.36×10^{-13}	$3.25^{+0.06}_{-0.02}$	$2.13^{+0.11}_{-0.06}$	$0.50^{+0.00}_{-0.00}$	$3.20^{+0.36}_{-0.37}$	$77.51^{+1.39}_{-1.18}$	$0.60^{+0.02}_{-0.02}$
	hi	1.23×10^{-12}	$3.17^{+0.09}_{-0.08}$	$1.41^{+0.39}_{-0.01}$	$2.79^{+1.40}_{-2.02}$	$2.16^{+0.41}_{-0.24}$	$77.82^{+2.18}_{-2.19}$	$0.29^{+0.15}_{-0.09}$
	hi cts s^{-1}	6.45×10^{-13}	$3.13^{+0.09}_{-0.08}$	$0.92^{+0.17}_{-0.04}$	$0.50^{+0.24}_{-0.00}$	$4.02^{+0.99}_{-1.02}$	$77.29^{+1.48}_{-1.64}$	$0.22^{+0.07}_{-0.05}$
	med	5.30×10^{-13}	$3.27^{+0.00}_{-0.00}$	$2.12^{+0.01}_{-0.01}$	$0.86^{+0.01}_{-0.01}$	$3.09^{+0.22}_{-0.21}$	$72.30^{+0.35}_{-0.40}$	$0.63^{+0.00}_{-0.00}$
	lo	2.57×10^{-13}	$3.14^{+0.06}_{-0.21}$	$1.87^{+0.16}_{-0.13}$	$0.50^{+0.71}_{-0.00}$	$9.24^{+0.76}_{-4.06}$	$65.46^{+3.35}_{-2.32}$	$0.74^{+0.03}_{-0.11}$
	lo cts s^{-1}	4.21×10^{-13}	$3.20^{+0.00}_{-0.00}$	$1.83^{+0.06}_{-0.08}$	$0.50^{+0.01}_{-0.00}$	$2.92^{+0.37}_{-0.38}$	$74.68^{+1.09}_{-1.41}$	$0.64^{+0.00}_{-0.00}$
MCG-6-30-15	Combined	4.12×10^{-11}	$2.00^{+0.02}_{-0.12}$	$3.01^{+0.00}_{-0.12}$	$10.00^{+0.00}_{-0.36}$	$10.00^{+0.00}_{-4.99}$	$32.16^{+2.79}_{-2.42}$	–
	hi	4.64×10^{-13}	$2.00^{+0.13}_{-0.10}$	$3.01^{+0.03}_{-0.11}$	$10.00^{+0.00}_{-0.52}$	$10.00^{+0.00}_{-0.54}$	$32.06^{+2.47}_{-2.21}$	–
	lo	3.24×10^{-11}	$1.78^{+0.06}_{-0.08}$	$2.82^{+0.18}_{-0.29}$	$10.00^{+0.00}_{-5.54}$	$0.77^{+0.52}_{-0.31}$	$41.98^{+5.97}_{-5.66}$	–
Mrk 335	Combined	9.58×10^{-12}	$2.82^{+0.28}_{-0.20}$	$0.82^{+0.25}_{-0.39}$	$0.78^{+1.47}_{-0.23}$	$10.00^{+0.00}_{-4.38}$	$69.62^{+8.97}_{-26.89}$	–
	hi/2006	1.67×10^{-11}	$1.00^{+0.05}_{-0.05}$	$3.10^{+0.04}_{-0.01}$	$5.00^{+0.99}_{-0.70}$	$10.00^{+0.00}_{-3.83}$	$13.02^{+4.47}_{-8.02}$	–
	lo/2009	4.83×10^{-12}	$1.75^{+0.23}_{-0.12}$	$0.10^{+3.13}_{-0.10}$	$3.70^{+6.30}_{-2.50}$	$1.13^{+4.64}_{-0.74}$	$32.38^{+8.79}_{-27.38}$	–
Mrk 766	Combined	1.53×10^{-11}	$1.89^{+0.01}_{-0.01}$	$3.40^{+0.56}_{-0.04}$	$0.50^{+0.02}_{-0.00}$	$4.33^{+0.41}_{-0.08}$	$29.92^{+6.55}_{-1.25}$	$0.95^{+0.00}_{-0.13}$
	hi	2.46×10^{-11}	$2.04^{+0.04}_{-0.03}$	$3.23^{+0.09}_{-0.06}$	$0.56^{+0.12}_{-0.76}$	$2.04^{+2.11}_{-3.98}$	$41.97^{+4.00}_{-3.98}$	–
	med	1.43×10^{-11}	$1.97^{+0.00}_{-0.00}$	$3.00^{+0.01}_{-0.06}$	$10.00^{+0.00}_{-0.35}$	$0.34^{+0.04}_{-0.09}$	$38.27^{+1.81}_{-2.44}$	–
	lo	7.32×10^{-12}	$1.53^{+0.12}_{-0.09}$	$3.00^{+0.05}_{-0.15}$	$2.46^{+2.47}_{-0.71}$	$2.55^{+7.45}_{-1.18}$	$19.42^{+10.99}_{-14.42}$	$0.39^{+0.56}_{-0.08}$
Mrk 841	Combined	1.22×10^{-11}	$2.00^{+0.49}_{-0.35}$	$3.00^{+0.29}_{-0.15}$	$9.61^{+0.39}_{-5.53}$	$10.00^{+0.00}_{-5.00}$	$69.04^{+2.26}_{-17.38}$	–
	hi/2001	1.55×10^{-11}	$2.49^{+0.36}_{-0.08}$	$3.70^{+0.62}_{-0.73}$	$1.92^{+2.18}_{-1.14}$	$2.94^{+7.06}_{-2.40}$	$43.26^{+26.34}_{-7.97}$	–
	lo/2005	1.08×10^{-11}	$1.80^{+0.41}_{-0.31}$	$3.00^{+0.31}_{-0.16}$	$10.00^{+0.00}_{-0.00}$	$9.79^{+0.21}_{-0.00}$	$68.84^{+3.06}_{-10.90}$	–

Table 1 – continued from previous page

Source	Group	F_{2-10} kev	$\Gamma_{\texttt{Relxill}}$	$\log\xi$	AF_e	RF	i	Cvr Frac
NGC 1365	Combined	8.91×10^{-12}	$1.59^{+0.04}_{-0.14}$	$3.00^{+0.02}_{-0.00}$	$0.70^{+0.24}_{-0.16}$	$10.00^{+0.00}_{-6.50}$	$5.00^{+1.98}_{-0.00}$	$0.95^{+0.00}_{-0.44}$
	hi	2.16×10^{-11}	$3.14^{+0.00}_{-0.01}$	$0.41^{+0.04}_{-0.03}$	$0.50^{+0.53}_{-0.00}$	$10.00^{+0.00}_{-0.21}$	$6.24^{+14.37}_{-1.24}$	$0.93^{+0.00}_{-0.02}$
	lo	6.03×10^{-12}	$2.28^{+0.12}_{-0.07}$	$2.27^{+0.04}_{-0.07}$	$4.48^{+0.37}_{-0.48}$	$10.00^{+0.00}_{-0.07}$	$6.76^{+2.83}_{-1.76}$	$0.94^{+0.00}_{-0.00}$
NGC 3516	Combined	3.27×10^{-11}	$1.96^{+0.05}_{-0.07}$	$3.00^{+0.00}_{-0.01}$	$5.00^{+0.22}_{-0.15}$	$8.88^{+1.12}_{-0.54}$	$50.49^{+1.09}_{-0.83}$	$0.81^{+0.01}_{-0.01}$
	hi/2006	4.53×10^{-11}	$1.00^{+0.04}_{-0.00}$	$2.75^{+0.08}_{-0.04}$	$0.75^{+0.25}_{-0.07}$	$1.75^{+1.30}_{-0.29}$	$54.27^{+1.30}_{-1.55}$	$0.95^{+0.00}_{-0.00}$
	med/2006	3.68×10^{-11}	$1.00^{+0.22}_{-0.00}$	$1.57^{+0.19}_{-0.19}$	$0.76^{+0.21}_{-0.22}$	$2.91^{+2.91}_{-0.80}$	$12.46^{+2.77}_{-7.46}$	$0.57^{+0.05}_{-0.02}$
	lo/2001	1.99×10^{-11}	$2.00^{+0.07}_{-0.36}$	$0.00^{+1.15}_{-0.00}$	$10.00^{+0.00}_{-6.19}$	$9.90^{+0.10}_{-1.11}$	$57.79^{+2.14}_{-3.44}$	$0.69^{+0.02}_{-0.05}$
NGC 4051	Combined	1.64×10^{-11}	$1.84^{+0.05}_{-0.04}$	$3.05^{+0.01}_{-0.00}$	$0.50^{+0.06}_{-0.00}$	$10.00^{+0.00}_{-4.78}$	$5.05^{+0.16}_{-0.05}$	$0.39^{+0.01}_{-0.05}$
	hi	2.14×10^{-11}	$2.29^{+0.10}_{-0.09}$	$3.34^{+0.32}_{-0.00}$	$0.50^{+0.10}_{-0.00}$	$10.00^{+0.00}_{-5.39}$	$15.45^{+3.93}_{-10.44}$	$0.39^{+0.06}_{-0.07}$
	lo	1.20×10^{-11}	$1.49^{+0.12}_{-0.00}$	$3.04^{+0.00}_{-0.19}$	$3.91^{+0.92}_{-0.71}$	$6.75^{+0.31}_{-2.62}$	$15.56^{+3.73}_{-6.84}$	$0.39^{+0.00}_{-0.00}$
NGC 4151	Combined	9.22×10^{-11}	$1.61^{+0.10}_{-0.12}$	$2.88^{+0.10}_{-0.12}$	$2.67^{+0.95}_{-1.08}$	$10.00^{+0.00}_{-4.53}$	$5.00^{+4.07}_{-0.00}$	$0.95^{+0.00}_{-0.00}$
	hi	2.33×10^{-10}	$1.10^{+0.00}_{-0.09}$	$0.00^{+2.71}_{-0.00}$	$10.00^{+0.00}_{-6.64}$	$0.65^{+1.02}_{-0.24}$	$26.57^{+2.28}_{-4.66}$	$0.95^{+0.00}_{-0.02}$
	lo	5.32×10^{-11}	$2.74^{+0.06}_{-0.01}$	$1.37^{+0.05}_{-0.04}$	$0.50^{+0.15}_{-0.00}$	$7.37^{+0.00}_{-0.44}$	$5.37^{+2.66}_{-0.37}$	$0.95^{+0.00}_{-0.00}$
NGC 4395	Combined	5.89×10^{-12}	$1.06^{+0.00}_{-0.04}$	$0.34^{+2.66}_{-0.34}$	$10.00^{+0.00}_{-0.89}$	$0.40^{+0.00}_{-0.18}$	$39.23^{+2.71}_{-3.46}$	$0.64^{+0.07}_{-0.03}$
	hi/2003	5.73×10^{-12}	$1.00^{+0.00}_{-0.00}$	$0.00^{+2.35}_{-0.00}$	$10.00^{+0.00}_{-7.78}$	$0.87^{+1.03}_{-0.65}$	$9.54^{+15.46}_{-4.54}$	$0.60^{+0.04}_{-0.04}$
	lo/2014	6.12×10^{-12}	$1.26^{+0.16}_{-0.26}$	$2.39^{+0.59}_{-2.09}$	$10.00^{+0.00}_{-7.05}$	$10.00^{+0.00}_{-7.20}$	$26.66^{+4.63}_{-3.29}$	$0.95^{+0.00}_{-0.01}$
NGC 5548	Combined	3.05×10^{-11}	$1.77^{+1.28}_{-0.36}$	$0.07^{+0.36}_{-0.07}$	$10.00^{+0.00}_{-6.19}$	$6.09^{+3.91}_{-1.29}$	$67.34^{+2.65}_{-1.60}$	$0.54^{+0.04}_{-0.06}$
	hi/2001	4.00×10^{-11}	$2.80^{+0.30}_{-0.62}$	$2.15^{+0.70}_{-0.42}$	$0.50^{+0.62}_{-0.00}$	$1.31^{+0.94}_{-0.68}$	$5.00^{+3.89}_{-0.00}$	$0.48^{+0.19}_{-0.15}$
	lo	2.84×10^{-11}	$1.60^{+0.20}_{-0.43}$	$0.70^{+1.16}_{-0.70}$	$10.00^{+0.00}_{-2.95}$	$10.00^{+0.00}_{-3.21}$	$68.81^{+1.47}_{-3.36}$	$0.84^{+0.00}_{-0.00}$
NGC 6860	2009	2.23×10^{-11}	$3.20^{+0.20}_{-0.31}$	$3.99^{+0.35}_{-0.44}$	$9.72^{+0.28}_{-0.21}$	$2.19^{+1.68}_{-0.89}$	$44.47^{+6.12}_{-5.26}$	$0.89^{+0.03}_{-0.03}$
NGC 7314	Combined	2.32×10^{-11}	$2.09^{+0.04}_{-0.06}$	$1.78^{+0.07}_{-0.04}$	$10.00^{+0.00}_{-1.08}$	$0.68^{+0.14}_{-0.13}$	$46.68^{+1.57}_{-1.22}$	$0.95^{+0.00}_{-0.00}$
	hi/2001	4.03×10^{-11}	$2.15^{+0.18}_{-0.09}$	$2.75^{+0.32}_{-0.27}$	$10.00^{+0.00}_{-7.48}$	$0.57^{+0.25}_{-0.14}$	$42.35^{+3.52}_{-1.50}$	$0.95^{+0.00}_{-0.00}$
	lo	2.07×10^{-11}	$2.06^{+0.00}_{-0.66}$	$1.78^{+0.09}_{-0.05}$	$10.00^{+0.00}_{-1.49}$	$0.64^{+0.16}_{-0.15}$	$46.88^{+1.67}_{-1.47}$	$0.95^{+0.00}_{-0.00}$
NGC 7469	Combined	2.95×10^{-11}	$2.39^{+0.14}_{-0.29}$	$3.48^{+0.75}_{-0.40}$	$9.24^{+0.76}_{-4.16}$	$0.30^{+0.14}_{-0.08}$	$45.05^{+6.14}_{-6.29}$	$0.47^{+0.14}_{-0.09}$
	hi	2.91×10^{-11}	$2.62^{+0.16}_{-0.27}$	$3.70^{+0.40}_{-0.65}$	$10.00^{+0.00}_{-2.27}$	$0.76^{+0.34}_{-0.27}$	$74.88^{+2.67}_{-3.16}$	$0.55^{+0.04}_{-0.13}$
	lo	2.97×10^{-11}	$2.29^{+0.45}_{-0.34}$	$3.30^{+0.88}_{-0.38}$	$8.50^{+1.53}_{-4.51}$	$0.38^{+0.29}_{-0.17}$	$44.35^{+5.24}_{-9.80}$	$0.55^{+0.35}_{-0.17}$
PG 1211+143	Combined	3.68×10^{-12}	$2.06^{+0.04}_{-0.07}$	$2.40^{+0.30}_{-0.21}$	$2.27^{+0.99}_{-1.04}$	$2.61^{+2.15}_{-1.18}$	$15.73^{+5.13}_{-6.58}$	–
	hi	3.85×10^{-12}	$2.03^{+0.09}_{-0.16}$	$2.70^{+1.06}_{-0.35}$	$2.02^{+0.15}_{-0.87}$	$2.28^{+2.79}_{-0.00}$	$6.24^{+0.13}_{-1.24}$	–
	lo	3.31×10^{-12}	$1.80^{+0.00}_{-0.00}$	$2.30^{+0.14}_{-0.10}$	$0.60^{+0.20}_{-0.00}$	$1.62^{+1.13}_{-0.00}$	$24.27^{+1.58}_{-1.84}$	–
PG 1244+026	Combined	2.62×10^{-12}	$1.94^{+0.33}_{-0.27}$	$1.45^{+0.56}_{-0.24}$	$0.79^{+0.46}_{-0.24}$	$7.61^{+2.39}_{-3.29}$	$79.97^{+0.03}_{-19.29}$	–
	hi	2.93×10^{-12}	$2.36^{+0.48}_{-0.22}$	$1.69^{+2.28}_{-1.70}$	$10.00^{+0.00}_{-9.50}$	$0.88^{+0.93}_{-0.54}$	$45.28^{+0.17}_{-2.89}$	–

Table 1 – continued from previous page

Source	Group	F_{2-10} kev	$\Gamma_{\texttt{Relxill}}$	$\log\xi$	AF_e	RF	i	Cvr Frac
	lo	2.54×10^{-12}	$2.05^{+0.19}_{-0.33}$	$1.43^{+0.58}_{-0.13}$	$0.69^{+0.31}_{-0.19}$	$9.54^{+0.46}_{-5.43}$	$43.99^{+2.83}_{-3.51}$	–
PG 1247+267	2003	4.22×10^{-13}	$2.53^{+0.57}_{-0.28}$	$0.05^{+0.75}_{-0.05}$	$4.63^{+5.37}_{-4.13}$	$10.00^{+0.00}_{-6.41}$	$5.00^{+35.51}_{-0.00}$	$0.73^{+0.22}_{-0.33}$
REJ 1034+396	Combined	1.03×10^{-12}	$1.54^{+0.24}_{-0.27}$	$3.30^{+0.13}_{-0.29}$	$10.00^{+0.00}_{-3.70}$	$10.00^{+0.00}_{-4.19}$	$5.00^{+37.72}_{-0.00}$	–
	hi	7.20×10^{-13}	$2.27^{+0.71}_{-0.41}$	$2.90^{+0.54}_{-2.90}$	$6.19^{+3.81}_{-5.69}$	$1.89^{+8.11}_{-1.30}$	$80.00^{+0.00}_{-5.99}$	–
	lo	1.12×10^{-12}	$1.74^{+0.17}_{-0.14}$	$0.46^{+3.08}_{-0.46}$	$10.00^{+0.00}_{-4.30}$	$10.00^{+0.00}_{-4.37}$	$5.00^{+35.88}_{-0.00}$	–

Table 2: The best spectral fits for 1H0707-495 individual orbits computed to 90% confidence, outlining the model flux (2-10 keV), photon index Γ, ionisation $\log\xi$, iron abundance A_{Fe}, reflection fraction RF, disk inclination i (deg), covering fraction and nH.

Obs ID	F_{2-10} kev (erg cm^{-2} s^{-1})	$\Gamma_{\texttt{Relxill}}$	$\log\xi$ (erg cm^{-2} s^{-1})	AF_e (solar)	RF	i (Deg)	Cvr Frac	nH (10^{22} cm^{-2})
0110890201	4.28×10^{-13}	$2.64^{+0.01}_{-0.02}$	$0.76^{+0.31}_{-0.34}$	$0.50^{+1.94}_{-0.00}$	$10.00^{+0.00}_{-4.92}$	$77.95^{+2.04}_{-0.30}$	$0.74^{+0.01}_{-0.11}$	$12.80^{+4.02}_{-5.20}$
0148010301	1.12×10^{-12}	$3.01^{+0.01}_{-0.01}$	$0.38^{+2.54}_{-0.14}$	$0.50^{+1.88}_{-0.00}$	$4.16^{+1.78}_{-1.63}$	$80.00^{+0.00}_{-2.41}$	$0.80^{+0.15}_{-0.19}$	$259.70^{+143.00}_{-94.40}$
0506200201	2.46×10^{-13}	$2.40^{+0.28}_{-0.31}$	$3.29^{+0.35}_{-0.49}$	$5.04^{+4.96}_{-2.37}$	$10.00^{+0.00}_{-8.33}$	$78.18^{+1.81}_{-64.00}$	$0.80^{+0.01}_{-0.38}$	$4.77^{+1.55}_{-1.56}$
0506200301	6.87×10^{-13}	$2.49^{+0.18}_{-0.16}$	$1.11^{+1.22}_{-0.01}$	$1.08^{+4.06}_{-0.58}$	$3.55^{+2.65}_{-1.05}$	$65.77^{+6.08}_{-2.55}$	$0.12^{+0.64}_{-0.01}$	$24.51^{+61.00}_{-11.72}$
0506200401	1.07×10^{-12}	$3.31^{+0.01}_{-0.01}$	$1.19^{+0.29}_{-0.01}$	$0.50^{+2.13}_{-0.00}$	$3.12^{+0.29}_{-1.50}$	$67.44^{+11.48}_{-4.13}$	$0.37^{+0.12}_{-0.10}$	$2.01^{+1.03}_{-1.58}$
0506200501	1.48×10^{-12}	$3.16^{+0.13}_{-0.11}$	$2.06^{+0.27}_{-0.23}$	$0.50^{+0.91}_{-0.00}$	$3.38^{+0.00}_{-0.17}$	$76.74^{+3.25}_{-3.87}$	$0.46^{+0.12}_{-0.14}$	$5.81^{+1.15}_{-1.19}$
0511580101	1.02×10^{-12}	$3.14^{+0.12}_{-0.01}$	$2.31^{+0.13}_{-0.25}$	$0.59^{+0.62}_{-0.01}$	$1.60^{+0.42}_{-0.38}$	$77.10^{+2.53}_{-3.73}$	$0.54^{+0.01}_{-0.01}$	$5.32^{+0.69}_{-0.91}$
0511580201	1.46×10^{-12}	$3.36^{+0.00}_{-0.01}$	$2.37^{+0.26}_{-0.21}$	$0.50^{+0.38}_{-0.00}$	$1.29^{+0.28}_{-0.24}$	$79.01^{+0.98}_{-3.31}$	$0.53^{+0.01}_{-0.01}$	$3.74^{+1.20}_{-2.98}$
0511580301	1.06×10^{-12}	$3.36^{+0.01}_{-0.01}$	$2.21^{+0.15}_{-0.21}$	$0.50^{+0.62}_{-0.00}$	$2.54^{+1.67}_{-0.69}$	$72.82^{+3.15}_{-3.27}$	$0.52^{+0.01}_{-0.13}$	$0.29^{+3.91}_{-0.29}$
0511580401	8.51×10^{-13}	$3.40^{+0.00}_{-0.15}$	$1.92^{+0.17}_{-0.51}$	$0.50^{+1.85}_{-0.00}$	$5.42^{+0.80}_{-2.71}$	$69.29^{+6.91}_{-10.75}$	$0.51^{+0.00}_{-0.19}$	$6.99^{+1.42}_{-1.11}$
0554710801	2.79×10^{-13}	$2.82^{+0.15}_{-0.22}$	$1.82^{+0.26}_{-0.45}$	$0.50^{+0.75}_{-0.00}$	$10.00^{+0.00}_{-3.47}$	$80.00^{+0.00}_{-3.91}$	$0.93^{+0.01}_{-0.01}$	$5.47^{+1.79}_{-2.77}$
0653510301	7.84×10^{-13}	$3.40^{+0.00}_{-0.01}$	$2.17^{+0.13}_{-0.12}$	$0.50^{+1.01}_{-0.00}$	$6.39^{+0.36}_{-0.32}$	$71.59^{+3.03}_{-4.19}$	$0.55^{+0.01}_{-0.01}$	$346.00^{+146.97}_{-31.50}$
0653510401	1.02×10^{-12}	$3.25^{+0.00}_{-0.00}$	$0.76^{+0.01}_{-0.00}$	$2.28^{+1.22}_{-1.78}$	$4.19^{+0.24}_{-0.70}$	$80.00^{+0.00}_{-0.60}$	$0.95^{+0.00}_{-0.07}$	$6.48^{+0.66}_{-0.49}$
0653510501	7.58×10^{-13}	$3.36^{+0.01}_{-0.01}$	$2.14^{+0.17}_{-0.34}$	$0.50^{+0.44}_{-0.00}$	$3.46^{+1.34}_{-0.86}$	$73.35^{+2.86}_{-4.62}$	$0.95^{+0.01}_{-0.14}$	$235.22^{+59.95}_{-97.90}$
0653510601	7.88×10^{-13}	$3.30^{+0.00}_{-0.00}$	$0.74^{+0.00}_{-0.00}$	$0.50^{+0.49}_{-0.00}$	$3.35^{+0.69}_{-0.52}$	$80.00^{+0.00}_{-0.21}$	$0.95^{+0.17}_{-0.00}$	$0.13^{+1.36}_{-1.67}$

4

Table 3: The best spectral fits for IRAS 13224-3809 individual orbits computed to 90% confidence, outlining the model flux (2-10 keV), photon index Γ, ionisation $\log\xi$, iron abundance A_{Fe}, reflection fraction RF, disk inclination i (deg), covering fraction and nH.

| Obs ID	F_{2-10} kev (erg cm^{-2} s^{-1})	$\Gamma_{\mathtt{Relxill}}$	$\log\xi$ (erg cm^{-2} s^{-1})	AF_e (solar)	RF	i (Deg)	Cvr Frac	nH (10^{22} cm^{-2})
0110890101	4.65×10^{-13}	$3.21^{+0.17}_{-0.22}$	$2.26^{+0.24}_{-0.27}$	$0.50^{+0.39}_{-0.00}$	$7.46^{+2.54}_{-3.37}$	$67.55^{+6.60}_{-3.12}$	$0.70^{+0.07}_{-0.18}$	$0.97^{+17.50}_{-0.59}$
0673580101	6.24×10^{-13}	$3.23^{+0.12}_{-0.09}$	$1.93^{+0.17}_{-0.40}$	$6.93^{+3.07}_{-2.55}$	$2.85^{+0.65}_{-1.17}$	$64.92^{+9.72}_{-5.23}$	$0.40^{+0.15}_{-0.14}$	$0.13^{+9.90}_{-0.13}$
0673580201	5.07×10^{-13}	$3.11^{+0.18}_{-0.16}$	$1.77^{+0.42}_{-0.38}$	$0.50^{+2.97}_{-0.00}$	$3.83^{+1.21}_{-0.76}$	$80.00^{+0.00}_{-12.69}$	$0.60^{+0.15}_{-0.14}$	$4.25^{+2.26}_{-1.23}$
0673580301	2.67×10^{-13}	$3.14^{+0.19}_{-0.12}$	$1.46^{+0.72}_{-0.34}$	$0.50^{+0.41}_{-0.00}$	$5.01^{+4.99}_{-1.71}$	$63.96^{+12.39}_{-4.38}$	$0.64^{+0.18}_{-0.11}$	$0.32^{+23.23}_{-0.01}$
0673580401	5.34×10^{-13}	$3.14^{+0.16}_{-0.15}$	$1.45^{+0.39}_{-0.15}$	$0.50^{+2.91}_{-0.00}$	$9.23^{+0.71}_{-3.67}$	$79.07^{+0.93}_{-9.90}$	$0.57^{+0.09}_{-0.01}$	$2.74^{+1.35}_{-2.04}$
0780560101	3.75×10^{-13}	$3.40^{+0.00}_{-0.06}$	$2.14^{+0.22}_{-0.14}$	$0.50^{+1.50}_{-0.00}$	$10.00^{+0.00}_{-3.55}$	$67.41^{+3.70}_{-2.26}$	$0.83^{+0.03}_{-0.03}$	$0.36^{+0.05}_{-0.05}$
0780561301	5.37×10^{-13}	$3.32^{+0.07}_{-0.07}$	$2.17^{+0.20}_{-0.13}$	$0.50^{+0.28}_{-0.00}$	$2.81^{+0.92}_{-0.68}$	$75.91^{+3.31}_{-2.98}$	$0.62^{+0.07}_{-0.04}$	$4.60^{+2.02}_{-3.03}$
0780561401	6.33×10^{-13}	$3.26^{+0.14}_{-0.15}$	$2.03^{+0.29}_{-0.26}$	$0.50^{+1.37}_{-0.00}$	$3.74^{+0.98}_{-0.53}$	$73.70^{+3.61}_{-3.12}$	$0.65^{+0.05}_{-0.13}$	$6.77^{+0.05}_{-0.06}$
0780561501	3.25×10^{-13}	$3.36^{+0.04}_{-0.12}$	$1.91^{+0.16}_{-0.19}$	$0.96^{+1.71}_{-0.46}$	$4.81^{+1.96}_{-1.31}$	$66.95^{+6.15}_{-4.11}$	$0.78^{+0.04}_{-0.05}$	$288.20^{+64.3}_{-18.18}$
0780561601	7.61×10^{-13}	$3.30^{+0.07}_{-0.09}$	$2.18^{+0.21}_{-0.14}$	$0.50^{+0.26}_{-0.00}$	$4.01^{+2.90}_{-1.04}$	$77.41^{+2.58}_{-2.54}$	$0.60^{+0.07}_{-0.07}$	$6.38^{+1.44}_{-1.57}$
0780561701	3.99×10^{-13}	$3.32^{+0.08}_{-0.15}$	$2.10^{+0.22}_{-0.31}$	$0.50^{+2.79}_{-0.00}$	$3.15^{+3.19}_{-0.75}$	$70.19^{+4.91}_{-3.86}$	$0.66^{+0.07}_{-0.15}$	$0.03^{+3.19}_{-0.56}$
0792180101	3.73×10^{-13}	$3.19^{+0.09}_{-0.13}$	$1.92^{+0.13}_{-0.21}$	$0.99^{+2.11}_{-0.49}$	$5.79^{+3.44}_{-1.36}$	$69.02^{+4.20}_{-2.33}$	$0.76^{+0.04}_{-0.07}$	$4.31^{+1.40}_{-2.74}$
0792180201	4.17×10^{-13}	$3.30^{+0.07}_{-0.17}$	$2.11^{+0.19}_{-0.10}$	$0.50^{+0.22}_{-0.00}$	$4.71^{+1.39}_{-1.19}$	$69.15^{+2.82}_{-1.97}$	$0.67^{+0.04}_{-0.12}$	$4.46^{+0.68}_{-2.61}$
0792180301	2.48×10^{-13}	$3.33^{+0.07}_{-0.17}$	$1.84^{+0.54}_{-0.71}$	$2.80^{+3.91}_{-2.30}$	$8.89^{+1.11}_{-4.19}$	$58.47^{+12.91}_{-9.32}$	$0.76^{+0.08}_{-0.07}$	$4.86^{+1.99}_{-1.97}$
0792180401	1.22×10^{-12}	$3.01^{+0.04}_{-0.03}$	$1.11^{+0.16}_{-0.08}$	$2.35^{+0.98}_{-1.13}$	$2.21^{+0.37}_{-0.49}$	$79.84^{+0.16}_{-2.72}$	$0.15^{+0.08}_{-0.09}$	$1.50^{+6.63}_{-0.68}$
0792180501	3.25×10^{-13}	$3.16^{+0.15}_{-0.16}$	$1.43^{+0.39}_{-0.11}$	$0.50^{+1.04}_{-0.00}$	$4.81^{+1.96}_{-1.35}$	$70.06^{+9.06}_{-3.77}$	$0.49^{+0.15}_{-0.11}$	$6.38^{+1.44}_{-1.62}$
0792180601	1.14×10^{-12}	$3.30^{+0.08}_{-0.06}$	$1.48^{+0.49}_{-0.11}$	$2.92^{+1.63}_{-1.85}$	$1.88^{+1.45}_{-0.84}$	$74.39^{+2.52}_{-2.21}$	$0.29^{+0.08}_{-0.08}$	$2.28^{+2.76}_{-1.57}$
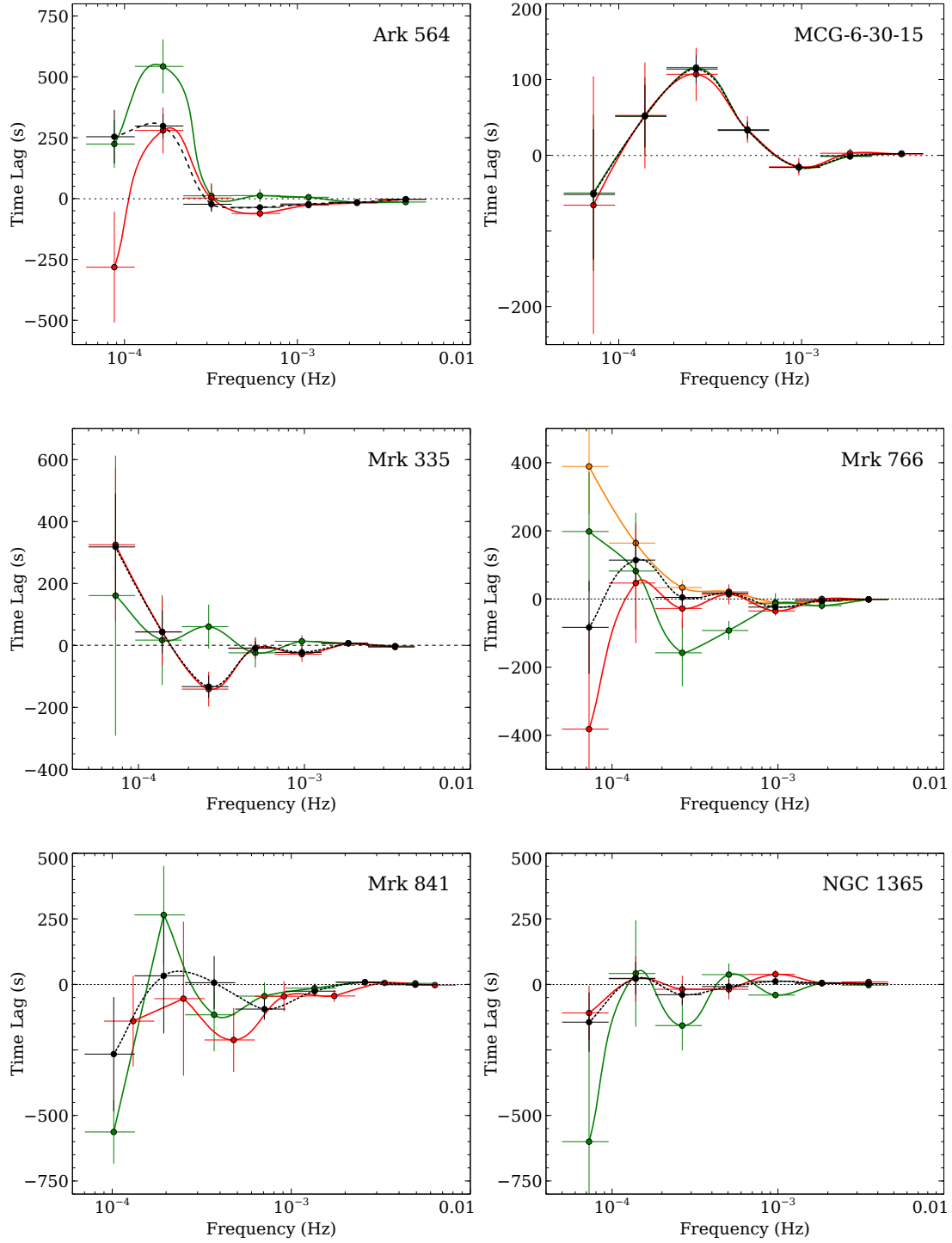
Figure 1: The lag-frequency results for all other AGN in the sample list, showing the combined lags (black dashed lines), high flux (red), medium flux (amber) and low flux lags (green).
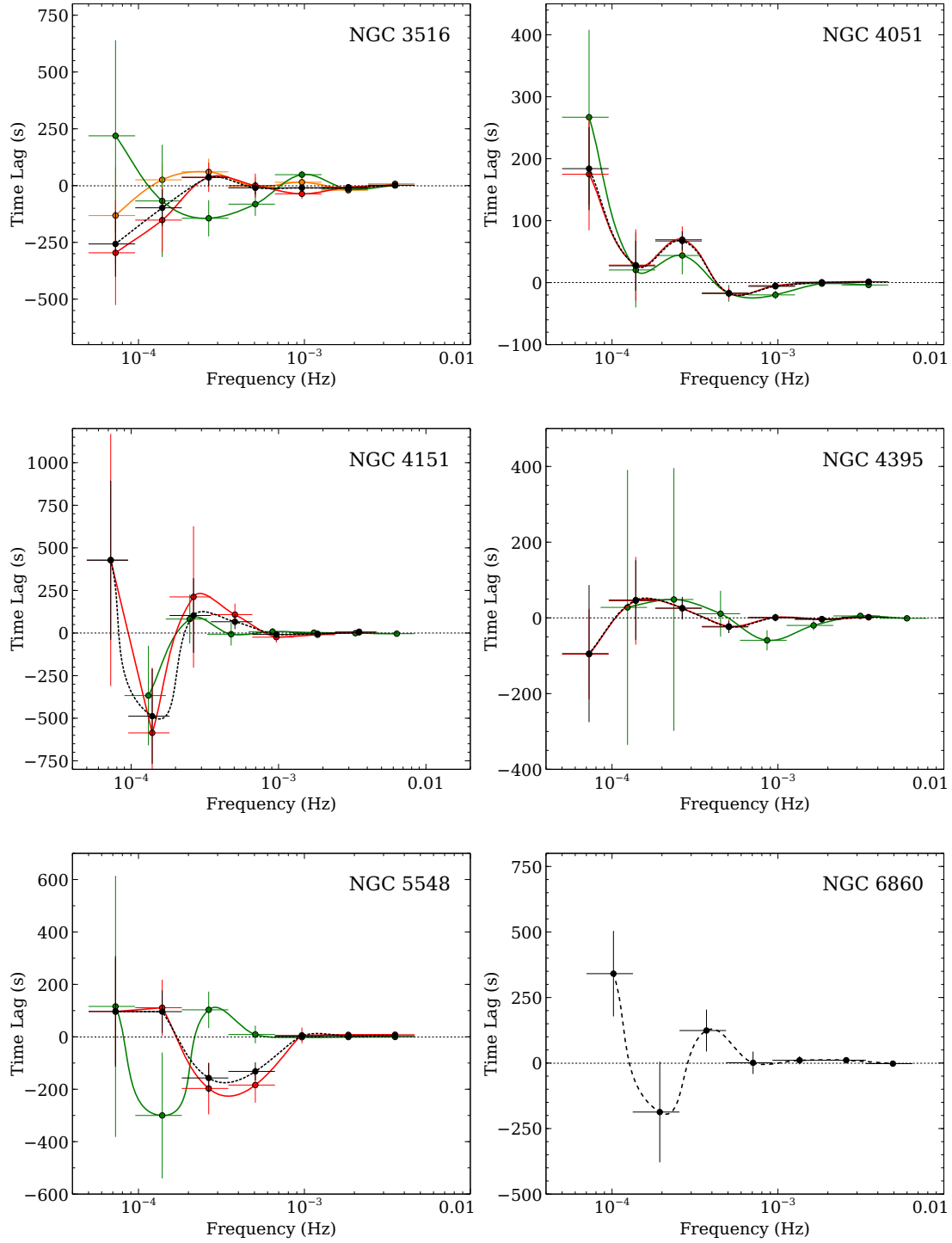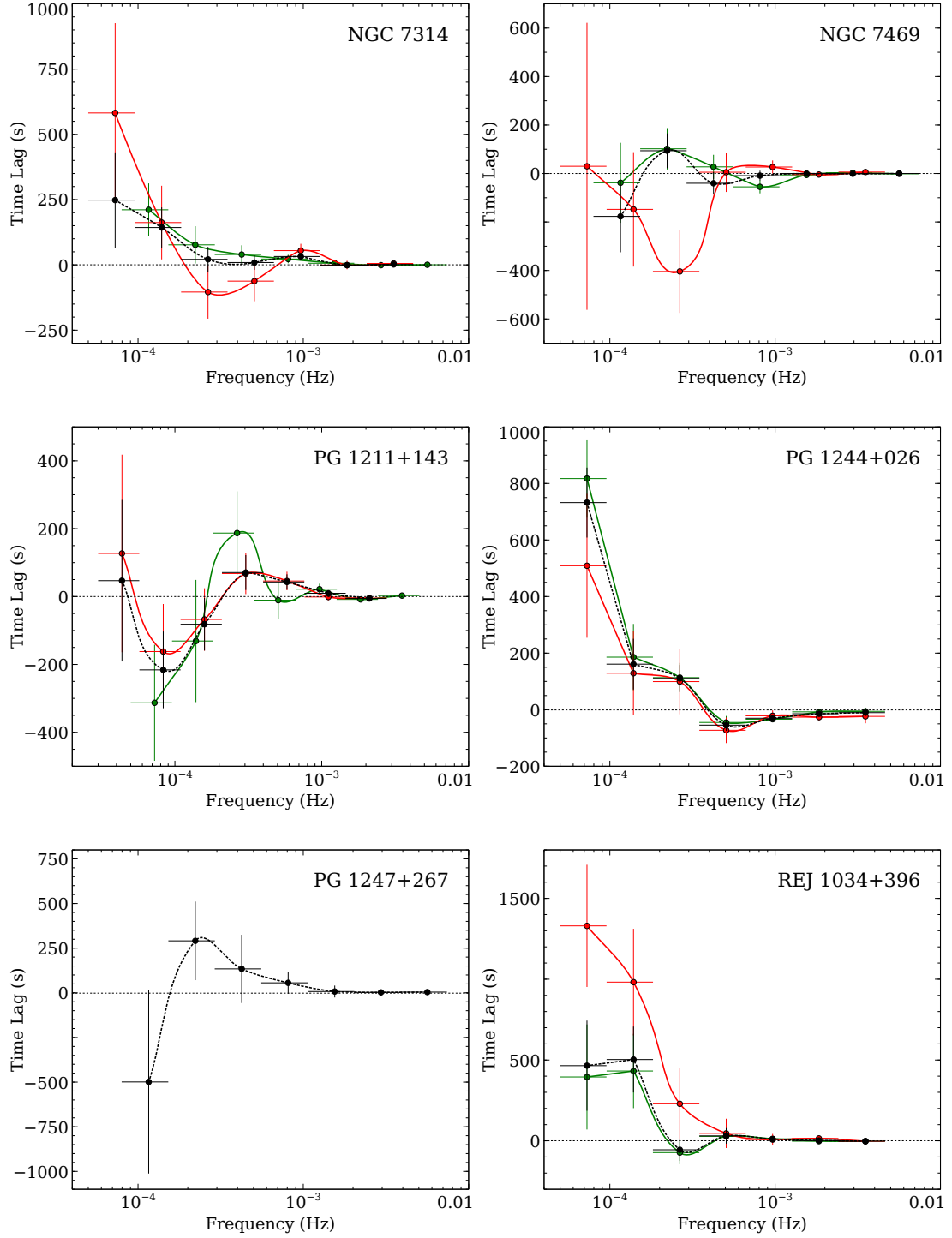
Figure 1: The lag-frequency results (continued).

Figure 1: The lag-frequency results (continued).