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Solving the hard X-rays excess in the NLSy 1 TON S180

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We present a detailed analysis of a joint *XMM-Newton & NuSTAR* observation of the nearby ($z = 0.062$) luminous NLSy 1 galaxy TON S180 taken in 2016. We find that the observed steep soft excess is likely produced by Comptonization rather than relativistic reflection. By analyzing the broadband SED from 1 eV to 35 keV, we find that the overall intrinsic properties of the continuum can be accounted for by thermal emission from the disc (UV) plus Comptonized emission from the corona at a high fraction ($\sim 70\%$) of the Eddington limit. We also find that there is a weak contribution of disc reflection with a moderate black hole spin.

Topic

Active Galactic Nuclei: accretion physics and evolution across cosmic time

Affiliation

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