The X-Ray Reflection Spectrum of the Radio-loud Quasar 4C 74.26 - DTU Orbit
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The relativistic jets created by some active galactic nuclei are important agents of AGN feedback. In spite of this, our understanding of what produces these jets is still incomplete. X-ray observations, which can probe the processes operating in the central regions in the immediate vicinity of the supermassive black hole, the presumed jet launching point, are potentially particularly valuable in illuminating the jet formation process. Here, we present the hard X-ray NuSTAR observations of the radio-loud quasar 4C 74.26 in a joint analysis with quasi-simultaneous, soft X-ray Swift observations. Our spectral analysis reveals a high-energy cutoff of $\gamma_{\text{cut}} = 4-180$ $\text{keV}$ and confirms the presence of ionized reflection in the source. From the average spectrum we detect that the accretion disk is mildly recessed, with an inner radius of $R_{\text{in}} = 4-180$ $R_g$. However, no significant evolution of the inner radius is seen during the three months covered by our NuSTAR campaign. This lack of variation could mean that the jet formation in this radio-loud quasar differs from what is observed in broad-line radio galaxies.

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