Title:	Broad-band spectral study of LMXB black hole candidate 4U 1957+11 with NuSTAR.
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Abstract:	We present here the results of broadband spectral analysis of a low-mass X-ray binary and a black hole candidate 4U 1957+11. The source was observed nine times with the Nuclear Spectroscopic Telescope Array (NuSTAR) between September 2018 and November 2019. During these observations, the spectral state of 4U 1957+11 evolved marginally. The disc dominant spectra are described well with a hot, multicolor disc blackbody with disc temperature varying in the range kTin ∼ 1.35–1.86 keV and a non-thermal component having a steep slope (Γ = 2–3). A broad Fe emission line feature (5–8 keV) was observed in the spectra of all the observations. The relativistic disc model was used to study the effect of distance, inclination and the black hole mass on its spin. Simulations indicate a higher spin for smaller distances and lower black hole masses. At smaller distances and higher masses, spin is maximum and almost independent of the distance. An inverse correlation exists between the spin and the spectral hardening factor for all the cases. The system prefers a moderate spin of about 0.85 for black hole masses between 4–6 M⊙ for a 7 kpc distance.
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