Title:	Simultaneous UV and X-ray observations of rapidly rotating stars with AstroSat
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Abstract:	Late type dwarf stars of spectral type K and M are among the most active stars. These stars are driven by convection and have rotating dynamo, generating the magnetic field. Stellar activity in such stars depends upon age of stars, rotation, spectral type. These stars often show energetic activities like flaring, where magnetic field lines reconnects, releasing non thermal emission by bremsstrahlung radiation (in Hard X-ray band) followed by chromo- spheric heating and Soft X-ray and UV radiation on cooling. AstroSat Observations and analyses of five such rapidly rotating stars are presented here. These are: AB Dor, BO Mic, DG CVn, GJ 3331, and V405 And with a rotation period below 12 hours. Level 2 data from Soft X-ray Telescope (SXT) and UV Imaging Tele- scope (UVIT) onboard AstroSat are used for extracting UV & X-ray light curves, and X-ray images for all the sources, with X-ray spectra for BO Mic. We observed change in tem- perature, coronal density, and metallicity during flare and defined two states of BO Mic, quiescent and flaring state. Spectral analysis study can be further detailed by using atomic plasma code models with variable abundances and extending the study to other sources. Mechanism behind the coro- nal and chromospheric activity can also be disscussed by verifying Neupert effect through UV & X-ray light curves correlation.
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