

Talk at Splinter Meeting

Splinter A

NEW PHOTOMETRIC REVERBERATION MAPPING OF 3C 120: THE
STABILITY OF THE OPTICAL FLUX VARIATION GRADIENT

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New photometric multiband monitoring in 2014/2015 reveals that the Seyfert-1 galaxy 3C 120 has brightened by 1.4 magnitudes compared to our previous campaign in 2009/2010. This allows us to check for the debated luminosity and time dependent color variations. For our 3C 120 data we find that the B/V flux ratio of the variable component in the bright epoch is indistinguishable from the faint one. We do not find any color variability on different timescales ranging from about 1 to 1800 days. We suggest that the luminosity and time dependent color variability that was found by Sun et al. (2014) is an artifact caused by analyzing the data in magnitudes instead of fluxes. The flux variation gradients of both epochs yield consistent estimates of the host galaxy contribution to our $7.5''$ aperture. These results corroborate that the optical flux variation gradient method works well for Seyfert Galaxies.