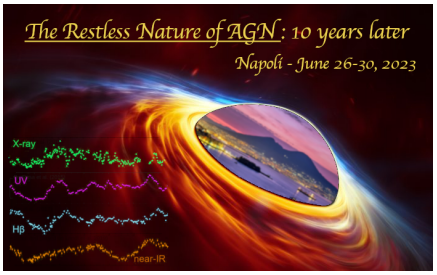

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Extracting AGN variable component properties with long-term optical photometry

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I present initial results from long-term (*U*)*BV*(*u'*)*g'r'* photometry with the Las Cumbres Observatory robotic telescope network of a sample of ˜80 AGN with a cadence of typically 1 month. The sample includes multiple representatives from the following AGN sub-categories: NLS1 with strong Fe II emission; Seyferts with Keplerian rotator broad line profiles; Seyferts with strong broad He II emission; obscured AGN; known Changing-look AGN; blazars. I utilise the flux variation gradient (FVG) method to determine the colour of an AGN's variable component. In most cases the FVG method also enables the separation of the variable and non-variable optical flux contributions and the estimation of the nuclear reddening. Since commencing this programme three years ago variations have been confirmed in >80% of the sample, and nuclear colours with an accuracy of 0.1 mag or better in *B-V* have been determined for half of the observed AGN. From these colours I determine the intrinsic variable component optical flux distributions and examine if and how these differ between the AGN sub-categories mentioned earlier. I briefly discuss how this constrains physical models of the variable parts of these AGN. Additional results include the indication that NLS1 with strong Fe II emission display lower optical variability amplitudes and that the reddening law for the dust obscuring some AGN differs to that applicable to typical interstellar dust.

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