PHOTOMETRIC STUDY OF FIVE 2016 NOVAE IN M31

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We present a study of the photometric optical behavour of five novae (M31N 2016-08b, 2016-08d, 2016-08e, 2016-09a, 2016-09b) discovered in August and September 2016 in M31. Novae' light curves were constructed combining all available data (original and archival) and their different phases were studied. Important parameters like rising time and rate, peak magnitude, declining time and rate, and light curve morphology were determined. The relationship "maximum magnitude - rate of decline" (MMRD) is also considered.
In addition, we aimed at detecting the progenitors of the novae in order to study the type of the secondaries – late MS, sub-giant or red giant – using deep optical catalogues like M31 LGGS (Massey et al. 2016) and PHAT (Williams et al. 2014).

References

Massey, P., Neugent, K.F., Smart, B.M. : 2016, *AJ,* **152,** 62
Williams, B.F., Lang, D., Dalcanton, J.J. et.al: 2014, ApJS, **215**, 9