V1494 Aql: Eclipsing Fast Nova with an Unusual Orbital Light Curve

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accretion, accretion disks — stars: binaries: eclipsing — stars: individual (V1494 Aquilae) — stars: novae, cataclysmic variables — stars: oscillations

abstract We present time-resolved photometry of V1494 Aql (Nova Aql 1999 No. 2) between 2001 November and 2003 June. The object is confirmed to be an eclipsing nova with a period of 0.1346138(2) d. The eclipses were present in all observed epochs. The orbital light curve shows a rather unusual profile, consisting of a bump-like feature at phase 0.6–0.7 and a dip-like feature at phase 0.2–0.4. These features were probably persistently present in all available observations between 2001 and 2003. A period analysis outside the eclipses has confirmed that these variations have a period common to the orbital period, and are unlikely interpreted as superhumps. We suspect that structure (probably in the accretion disk) fixed in the binary rotational frame is somehow responsible for this feature.