Publications of the Astronomical Society of Japan 2017 vol.69 N3

# OT J002656.6+284933 (CSS101212:002657+284933): An SU UMa-type dwarf nova with the longest superhump period

Kato T., Tordai T., Littlefield C., Kasai K., Shugarov S., Katysheva N., Zaostrojnykh A., Pickard R., De Miguel E., Antonyuk K., Antonyuk O., Pavlenko E., Pit N., Itoh H., Ruiz J., Isogai K., Kimura M., Wakamatsu Y., Vanmunster T., Stone G.
*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

## Abstract

© The Author 2017. Published by Oxford University Press on behalf of the Astronomical Society of Japan. All rights reserved. For Permissions, please email:. We observed the 2016 outburst of OT J002656.6+284933 (CSS101212:002657+284933) and found that it has the longest recorded [0.13225(1) d on average] superhumps among SU UMa-type dwarf novae. The object is the third known SU UMa-type dwarf nova above the period gap. The outburst, however, was unlike ordinary long-period SU UMa-type dwarf novae in that it s howed two post-outburst rebrightenings. It showed superhump evolution similar to short-period SU UMa-type dwarf novae. We could constrain the mass ratio to less than 0.15 (most likely between 0.10 and 0.15) by using superhump periods in the early and post-superoutburst stages. These results suggest the possibility that OT J002656.6+284933 has an anomalously undermassive secondary and it should have followed a different evolutionary track from the standard one.

http://dx.doi.org/10.1093/pasj/psx020

## Keywords

accretion, accretion disks, stars: dwarf novae, stars: individual (OT J002656.6+284933), stars: novae, cataclysmic variables

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