

Central Bureau for Astronomical Telegrams
Mailing address: Hoffman Lab 209; Harvard University;
20 Oxford St.; Cambridge, MA 02138; U.S.A.
e-mail: cbatiau@eps.harvard.edu (alternate cbat@iau.org)
URL <http://www.cbat.eps.harvard.edu/index.html>
Prepared using the Tamkin Foundation Computer Network

(4666) DIETZ

J. Oey, Blue Mountains Observatory, Leura, NSW, Australia; P. Kusnirak, P. Pravec, and K. Hornoch, Ondrejov Observatory; D. Pray, Sugarloaf Mountain Observatory, South Deerfield, MA, U.S.A.; V. Benishek, Belgrade Astronomical Observatory; R. Montaignut and A. Leroy, OPERA Observatory, France; and J. Vilagi, Modra Observatory, report that photometric observations obtained with 0.35-m and 0.61-m telescopes at the Blue Mountains Observatory, a 0.31-m telescope at the JBL Observatory in Bathurst, NSW, Australia, a 0.35-m telescope at Perth Observatory; a 0.65-m telescope at Ondrejov Observatory, a 0.50-m telescope at the Sugarloaf Mountain Observatory, a 0.35-m telescope at the Sopot Observatory in Serbia, a 0.20-m telescope at the OPERA Observatory, and a 0.61-m telescope at the Modra Observatory during 2011 May 25-June 1, 2015 Sept. 2-Oct. 18, and 2018 Mar. 31-July 6 reveal that minor planet (4666) is a binary system with an orbital period of 33.2 +/- 0.1 hr. The primary shows a period of 2.9524 +/- 0.0001 hr and has a lightcurve amplitude of 0.28 mag at solar phases 9-19 deg. Mutual eclipse/occultation events that are up to 0.12 magnitude deep indicate a lower limit on the secondary-to-primary mean-diameter ratio of 0.34. There occurred three additional 0.18-, 0.25-, and 0.09-magnitude-deep attenuations on 2015 Sept. 2 and on 2018 Apr. 7 and 8 that were not aligned with the 33.2-hr orbital period, suggesting the presence of a third body in the system. The mean absolute magnitude of the whole system in the Cousins R photometric system is $H_R = 12.67 \pm 0.09$, assuming the phase relation slope parameter $G = 0.24 \pm 0.11$.

NOTE: These 'Central Bureau Electronic Telegrams' are sometimes superseded by text appearing later in the printed IAU Circulars.

2018 July 20

(C) Copyright 2018 CBAT
(CBET 4536)

Daniel W. E. Green