bias and dark frames subtraction and flat-field normalization), and then (using Astrometrica, CCDsoft and similar software) stacked according to the apparent motion of the object. If the cometary appearance is not obvious by visual inspection of the resulting images, it is necessary to measure the FWHM of the object. If its value is at least 25% greater than that of stars (obviously stacked with a zero motion) of similar SNR and possibly close to the target - to limit optical effects – then it is a probable detection of a coma. Obviously, in order to make reliable assumptions about the presence of this feature, the results from the different series of images must be very similar. We're also testing different approaches to reveal cometary features to be used as possible, independent confirmation techniques of the FWHM measurement.

Astrometry for every observed object must be obtained in the traditional way and sent, as usual, to the MPC. In case a cometary feature is found, the observer must send a message to MPC and CBAT and also send a message to the mailing list for independent confirmation in a short time period (if the cometary feature is suspicious, one must send an e-mail only to the mailing-list); a copy of the measures, together with the FWHM of the object, FWHM of the comparison stars and the SNR of the object should be reported. The last step is taken by the coordinator: once confirmation is received a definitive report is sent to the MPC. Confirmed negative reports are similarly important.

Interested observers will find additional information on the T3 Pogram and how to join at the following URL:

http://asteroidi.uai.it

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## HIGH-SPEED PHOTOMETRIC ANALYSIS FOR MINOR PLANETS 1586 THIELE, 4246 TELEMANN, (10662) 3201 T-2, AND (49880) 1999 XP135

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Photometric observations of 1586 Thiele, 4246 Telemann, (10662) 3201 T-2, and (49880) 1999 XP135 were performed in September and October of 2005. The periods and amplitudes found were: 1586 Thiele 3.086 ± 0.038 h, 0.136 ± 0.011 mag; 4246 Telemann 8.960 ± 0.038 h, 0.109 ± 0.027 mag; (10662) 3201 T-2, 3.072 ± 0.038 h, 0.151 ± 0.04 mag; and (49880) 1999 XP135, 11.111 ± 0.038 h, 0.102 ± 0.035mag.

High-speed photometry of asteroids, with the aim of accurately determining rotation periods, is an ongoing research project involving undergraduate students from Delaware Community College. Students are involved in the data collection, reduction, and analysis.

The observations of 1586 Thiele, 4246 Telemann, 10662 (3201 T-2), and (49880) 1999 XP135 were obtained over two consecutive nights at Mount Cuba Astronomical Observatory (MCAO) in Greenville Delaware. 1586 Thiele was chosen as a target since it was reported to have a short period of 3.37 hr. While preparing the finder charts for 1586 Theile, we found that several additional asteroids brighter than 18th magnitude could be included in the

field of view. We decided to include the additional targets and determine the usable detection limit of our instrument and site. We determined target coordinates using TheSky software. Finder charts were prepared using the STScI Digitized Sky Survey. Our targets and magnitudes are given as follows: 1586 Thiele at 15.9 m, 4246 Telemann at 16.2m, (10662) 3201 T-2 at 17.4m, and (49880) 1999 XP135 at 16.7 m.

Data were collected using an Apogee Alta CCD unfiltered at the prime focus of the 24" Tinsley telescope at MCAO. Images were binned 2 by 2. Images were taken continuously, with either 12 or 20-second exposures followed by ~1 second downloads. This resulted in a cycle time of ~13 and ~21 seconds. With this process we were acquiring 3 to 4 images a minute giving a reasonably well-covered rotation of the faster rotating asteroids on a single nights run. The local sky brightness limited the exposure times for a reasonably high signal to noise ratio. The data were processed using the AIP (Astronomical Image Processing) software program (Berry and Burnell, 2000) and then analyzed and graphed with the Excel™ spreadsheet program. Dr. J.L. Provencal used a discrete Fourier Transform (DFT) to determine the periods and amplitudes of any variation. For the observations reported here, times given are not corrected for light travel time from the asteroid.

1586 Thiele. This asteroid showed a period of 3.086 ± 0.038 hours and amplitude of 0.136 ± 0.011 magnitude. The Ephemeredes of Minor Planets (2005) reported a period of 3.370 with 0.35 magnitude amplitude.

4246 Telemann. The lightcurve revealed a period of 8.960 ± 0.038 hours with a 0.109 ± 0.027 magnitude variation.

(10662) 3201 T-2. A period of 3.072 ± 0.038 h with an amplitude of 0.151 ± 0.04 mag was derived.

(49880) 1999 XP135. The DFT program showed an 11.111 ± 0.038 hr period and variation of 0.102 ± 0.035 mag. based on the data for the two nights. The 11 plus hour period is longer than the observing run for each session and should be considered suspect; it is most likely longer than 5 hours.

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