

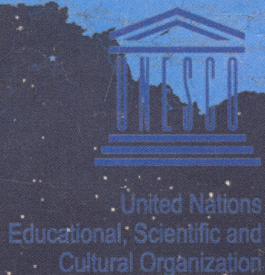
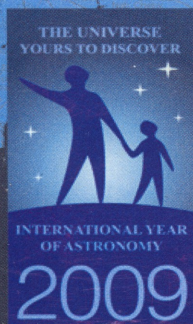
**INTERNATIONAL
CONFERENCE «ASTRONOMY
AND WORLD HERITAGE:
ACROSS TIME AND CONTI-
NENTS»**
19-24 AUGUST 2009

*International conference
«Near Earth Astronomy - 2009»
24 - 27 August 2009*

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spectra registered at 1.02^h, 5.96^d and 6.01^d time intervals) were from ~10 rel. % (at the difference of rotational phases $\Delta \approx 0.04$) to ~60 rel. % ($\Delta \approx 0.21$) increasing at 0.65–0.90 μm . The variations of NRS for (135) Hertha ($P=8.40^h$; the spectra measured at 0.7^h, 1.01–1.04^d and 1.99–2.02^d time intervals) reached ~10–30 rel. % (at 0.40 μm), ~6–7 rel. % (at 0.55–0.70 μm) and ~10–20 rel. % (at 0.90 μm) at $\Delta \div 0.08$ –0.97 with a maximum at $\Delta \div 0.20$ –0.30. The NRS differences for (196) Philomela ($P=8.34^h$; the spectra registered at of 3.98^d, 31.89^d and 35.87^d time intervals) were 5–10 rel. % at 0.55–0.80 μm and ~10–20 rel. % at the limits of spectral range reaching a maximum at $\Delta \div 0.41$ –0.70.

The variations of reflectance spectra of (10) Hygiea, (135) Hertha and (196) Philomela were registered at the period of a sufficiently stable spectral transparency of terrestrial atmosphere. The phase light angles of the asteroids were small and changed insignificantly. Besides, the brightness differences connected with irregularity of asteroid shape with rotation were excluded by normalizing the asteroid reflectance spectra. Hence, the registered spectral variations could be produced by changes in the mean spectral reflectivity of asteroid observed hemisphere with rotation. The spectral changes show probably that the surface matter of asteroids of different spectral types is not uniform in chemical-mineral content. The most probable reasons of considerable local heterogeneities of asteroid surface matter are traces of collisional events such as craters and the ejections from them.

ФОТОМЕТРИЯ АСТЕРОИДА 1991 VH ПО НАБЛЮДЕНИЯМ РТТ150 В 2008 Г. ✓

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В работе представлены результаты обработки и анализа фотометрических наблюдений АСЗ из группы Аполлона (35107) 1991 VH, выполненные на 1.5-м Российско-Турецком телескопе (РТТ150), который установлен в Турецкой Национальной обсерватории (г. Анталья, Турция). Астероид систематически наблюдался с 01 марта по 5 июля 2008 г. в полосе R (550 точек), также в фильтрах BVR (две ночи) перед сближением с Землей, которое произошло 15 августа 2008 г. на 0.0457 а. е. Исследование 1991 VH проводится в рамках международного проекта по изучению физических параметров и кинематики астероидов. В результате получены фотометрические характеристики этого астероида, построены световые кривые, которые демонстрируют изменения яркости 1991 VH с периодом переменности около 0.1 сут. и амплитудой 0.15 звездной величины в полосе R. Обнаружены изменения формы кривой блеска в разные ночи наблюдений. Также выполнена обработка фотометрических наблюдений РТТ150 ряда малых планет (15518, 5564, 6006 и др.) Данная работа выполнена при частичной поддержке Российского фонда фундаментальных исследований (грант РФФИ № 08-02-00704а).

PHOTOMETRY OF ASTEROID 1991 VH FROM OBSERVATIONS OF RTT150 AT 2008

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In this work some results of researches of near-Earth asteroid (35107) 1991VH from Apollo's group based on photometric studies on the 1.5-m Russian-Turkish telescope

(RTT150), situated in the Turkish National observatory (Antalia, Turkey) are presented. The asteroid was regularly observed from March 01st till July 5th, 2008 in R-band (550 points), also in filters BVR (two nights) before closest approach to the Earth at August 15th, 2008 on 0.0457 AU. Research of 1991 VH was being carried out within the international project on studying the physical parameters and kinematics of asteroids. As a result the photometric characteristics of this object are received; the light curves demonstrating changes of brightness of 1991 VH with period 0.1 d and amplitude in R-band 0.15^m are constructed. The changes of light curves shape in different dates are discovered. Also the photometry of some minor planets (15518, 5564, 6006 etc.) observed at RTT150 is executed. This work is done as a partial support of the Russian fund of fundamental researches (grant RFBR № 08-02-00704a).