New observations for (3200) Phaethon and analysis results

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**ABSTRACT**

The asteroid (3200) Phaethon is paid more and more attention because of its unusual orbit and its dust jets activity. For understanding the characteristic of Phaethon, 7 nights photometric observations were done in 2015 and 2016 with the Lijiang 2.4m telescope and the 18 inch telescope of Yunnan Observatories. Combining the new obtained photometric data and existed ones, the convex shape and spin parameters of Phaethon are simulated again with the convex method. Three nights spectral observations for Phaethon on Jan. 05, Oct. 20 and 21 of 2016 are done with the YFOSC instrument in Lijiang 2.4m telescope. In this conference, we would like to report (1) the lightcurve inversion result using the convex method; and (2) the reflectance of Phaethon in two apparitions.