

Public Relations and Training

Fumi Yoshida

Publication:

Two refereed publications have been produced: one scientific paper and one scientific report.

Distribution of Observing Manual:

The observation manual supervised by IOTA/EA is available.

Observations and Data analysis training:

An observation campaign and workshop on September 19, 2025
Experience cutting-edge professional occultation observations.

Publication

Scientific paper

This article is part of the theme issue 'Major advances in planetary sciences thanks to stellar occultations'.

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Section

Abstract

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Research articles

Formation of the International Occultation Timing Association/East Asia (IOTA/EA) and occultation observations of asteroid (3200) Phaethon

Fumi Yoshida✉, Tsutomu Hayamizu, Hayato Watanabe, Hiroshi Akitaya, Kazuhisa Miyashita, Hirotomo Noda, Mitsuru Sôma, Chilong Lin, Ye Yuan, Wai-Chun Yue, Toshihiro Horaguchi and Sean Marshall

Published: 27 February 2025 | <https://doi.org/10.1098/rsta.2024.0190>

Abstract

On 27 August 2023 (UTC), a new organization for occultation observations in East Asia was formed, the International Occultation Timing Association/East Asia (IOTA/EA). The goal of this organization is to promote and disseminate occultation observations in the East Asia region and to make occultation observations a useful tool and a partner for planetary exploration missions and other scientific research. The formation of IOTA/EA was triggered by the stellar eclipse observation campaign of (3200) Phaethon, which is the target of the JAXA DESTINY⁺ mission. This paper describes IOTA/EA and the Phaethon occultation observation that led to its formation.

This article is part of the theme issue 'Major advances in planetary sciences thanks to stellar occultations'.

Details

References

Related

Figures

This Issue

27 February 2025
Volume 383, Issue 2291

Theme issue
'Major advances in planetary sciences thanks to stellar occultations'
compiled and edited by Damya Souami, Stéfan Renner, Rafael Sfair, Maryame El Moutamid and Josselin Desmars

This paper describes the background of the formation of IOTA/EA, its activities, and the Phaethon occultation observation that led to IOTA/EA's founding.

この論文ではIOTA/EAの設立の経緯とIOTA/EAの活動、そしてIOTA/EA設立のきっかけを作ったフェートン掩星観測について述べられている。

本稿は特集「掩星観測がもたらした惑星科学の大きな進展」の一部である。

Publication

THE MINOR PLANET BULLETIN

Scientific report

BULLETIN OF THE MINOR PLANETS SECTION OF THE ASSOCIATION OF LUNAR AND PLANETARY OBSERVERS

VOLUME 52, NUMBER 3, A.D. 2025 JULY-SEPTEMBER

191.

A New Satellite of Asteroid (6326) Idamiyoshi Discovered from Occultation Observation

Pages 267-270

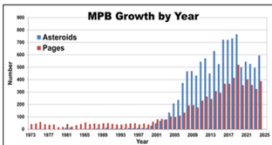
Miyashita, Kazuhisa; Watanabe, Hayato; Yamamura, Hidehito; Manago, Norihiro

A highly probable satellite phenomenon was observed during the occultation of the star UCAC4 525-004262 by the asteroid (6326) Idamiyoshi on August 21, 2024 at 18.75 hr (UT).

IOTA/EAメンバーがAsteroid (6326) Idamiyoshiに衛星を発見した観測報告がMinor Planer Bullitenに載りました。

The Minor Planet Bulletin

BULLETIN OF THE MINOR PLANETS SECTION OF THE ASSOCIATION OF LUNAR AND PLANETARY OBSERVERS



The *Minor Planet Bulletin* is the journal for almost all amateurs and even some professionals for publishing asteroid photometry results, including lightcurves, H-G parameters, color indexes, and shape/spin axis models. It is considered to be a refereed journal by the SAO/NASA ADS. All *MPB* papers are indexed in the ADS.

Print subscriptions are no longer available to individuals. Institutions (e.g., college libraries) can still obtain print copies via a special subscription. See details in MPB 37-4 or contact the editor, Richard Binzel.

Annual voluntary contributions of \$5.00 or more in support of the publication are welcome.

Please send a check, drawn on a U.S. bank and payable in U.S. funds, to "Minor Planet Bulletin" and send it to:

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UMD Astronomy Department
1113 PSC Bldg 415
College Park, MD 20742

[Authors Guide and Word Templates](#) (v.3.0: updated 2024 February 2)

The ZIP file contains the Authors Guide PDF as well as a "starter" paper in Word 2007+ (DOTX). Those using Word 97 (DOC/DOT) are encouraged to download [OpenOffice](#) and convert their files to the most recent Word format (DOCX). Please read this updated guide since there are a number of changes from previous guides.

- A new, optional, table is available for those wanting to include physical and discovery information in a more accessible way. See the announcement in *Minor Planet Bulletin* 51-2.
- The P_s column is no longer required and has been removed from the template for the standard table to allow more room for the other columns.
- The phase column should have only two values: for the first and last date in the range. If the phase reaches an extrema between those dates, put an asterisk before the first value. For example, *72.13.7.
- Use semicolons to separate names in the references section. For example: Smith, J.J.; Jones, A.A. (2019). This also applies if using several references to the same author in the text. For example: "This asteroid was observed at three previous apparitions (Jones, 2015; 2017; 2018)."

[Cumulative Index to Volumes 1-45](#)
[Cumulative Asteroid Lightcurve Index \(Volumes 1 through 51-2\)](#)

Observer	Telescope aperture	Camera	Frame exposure
Watanabe	20 cm	ZWO-ASI290MM	0.124 sec
Yamamura	20 cm	ZWO-ASI290MM	0.165 sec
Manago	35 cm	ZWO-ASI462MM	0.0358 sec

Table 1. Observation instruments. These cameras are of rolling shutter type. The system time of the camera control PC was corrected by GPS and, in addition, the time of the lightcurve measurement was accurately corrected by 1PPS LED light, which was simultaneously recorded during observation.

An observational report by IOTA/EA members discovering a satellite around Asteroid (6326) Idamiyoshi has been published in the Minor Planet Bulletin.

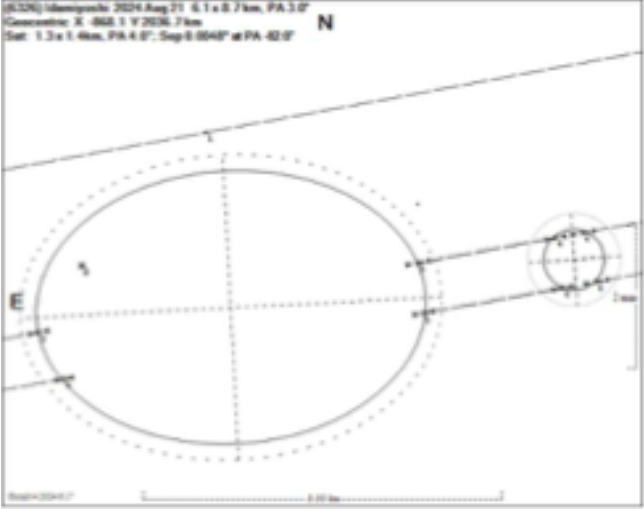


Figure 5. Sky-plane plot with estimated shape and size of the small object, with a possible satellite added. Error bars are given as 3 sigma estimates from the lightcurve noise. The ellipse drawn with dashed line indicates the peak of brightness caused by diffraction.

Distribution of Observing Manual

- As stated in the business plan, the observation manual is now public.
- We also plan to create a simplified version for beginners.

事業計画で述べた通り、観測マニュアルは公開されました。
今後は初心者向けの簡易マニュアルの作成も行なっていこうと思います。

Observations and Data analysis training

- As stated in the business plan, we will hold an observation campaign and workshop on September 19. The special talk at the observation workshop will be about TAOS2.

"TAOS2: detecting new objects beyond Neptune through occultations" will present by Dr. Á. Paula Granados C. (ASIAA)

事業計画で述べた通り、9月19日に観測キャンペーンと観測ワークショップを開催します。観測ワークショップのスペシャルトークはTAOS2についてです。プロの行う掩蔽観測最前線に触れてください。

A red starburst graphic with a black outline, containing text.

Experience cutting-edge professional occultation observations.