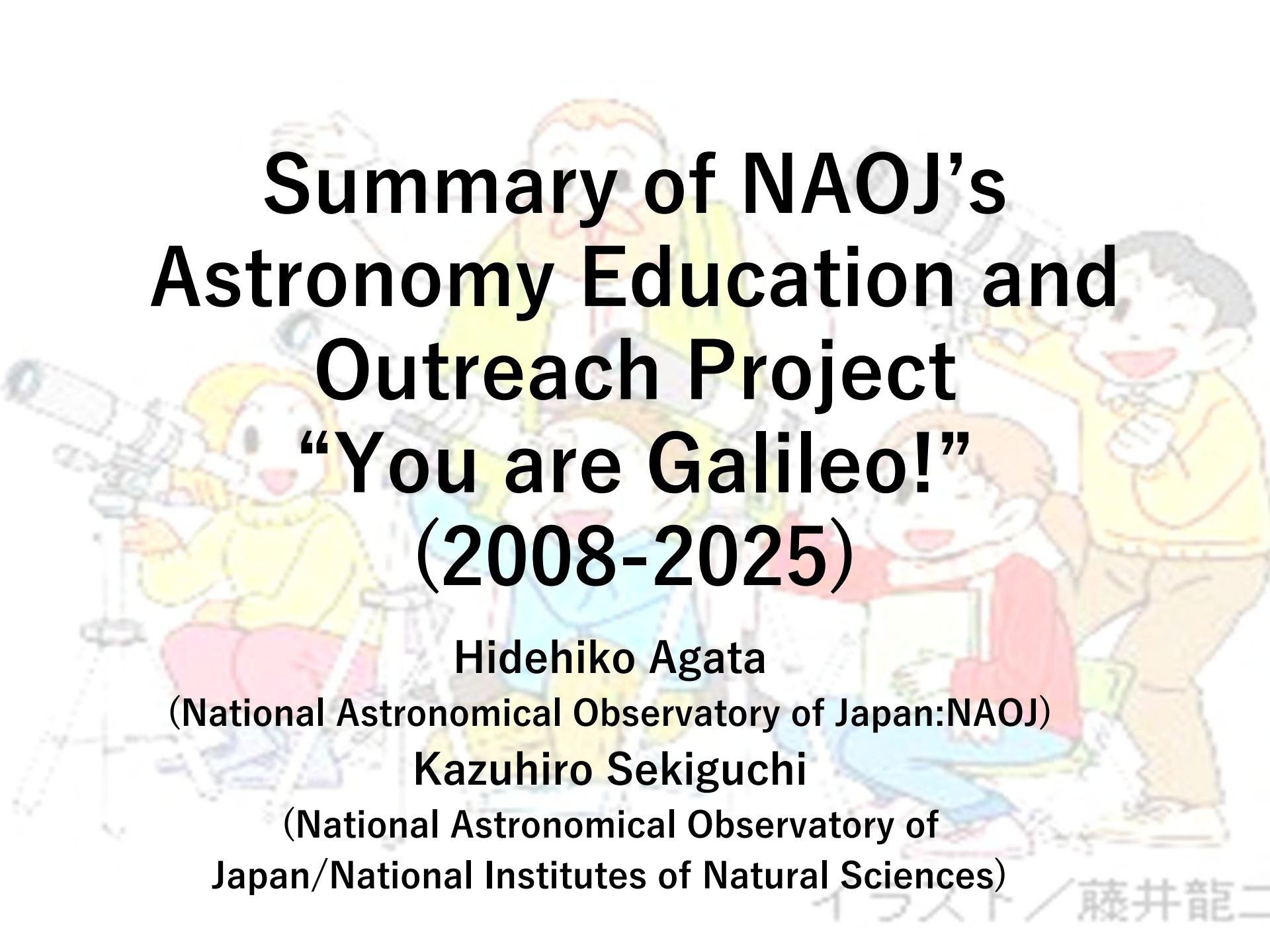
Summary of NAOJ's Astronomy Education and Outreach Project "You are Galileo!" (2008-2025)

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"You are Galileo!" project （2008～）

Initial Objective >>>

1) Offer **telescope** of around **ten dollars** worldwide

2) Expand **observation campaign** on the Web (Japanese 、 English etc.)

3) Implemented **workshops** for leaders both domestically and abroad





10 $ telescope (15 times)
Star Book Ltd. 1,718 yen + tax

20 $ telescope (35 times)
Orbis Ltd. 2,800 yen + tax

Inexpensive and easy to assemble “you are Galileo!” telescopes (first versions)

“You are Galileo !”











http://kimigali.jp/

Workshops around the world ! (2009-)

- Mongolia 7 times
- Indonesia 5 times
- Thailand 5 times
- Cambodia
- Myanmar
- Egypt
- Uzbekistan
- Brazil
- Peru
- Saudi Arabia
- Malaysia
- South Koria

e.t.c.









Case Study : Implementation in Mongolia

「You are Galileo!」 Project

You are Galileo! Let's see the cosmos with Galileoscope

Workshops for children and school teachers were held at

Ulaanbaatar
Ulaanbaatar
Khovd
Miyangado
Mandalgobi
Dalanzadgad
Bayan Ulgit









A total of 440 telescopes were distributed.

Problems of "You are Galileo!“ two type telescopes

- It is **difficult** to reliably **observe Saturn's ring** and **Venus's phase** for 4 cm diameter.
  - In Japan, it is listed in the guidance guidelines of the junior high school (Ministry of Education, Culture, Sports, Science and Technology).

- There are **limits** to the number of productions and **distribution** channels (especially in overseas distribution) from these two Japanese company.

EPISODE II (2018-)

"One telescope for one family" NAOJ plan

- Since 2008, NAOJ has been providing the "You are Galileo!" Project. This project is derived from the Galileoscope project which is a cornerstone project in the IYA2009.
- "You are Galileo!" Project has provided opportunities for observation of celestial bodies using small astronomical telescopes for children.
- At present, there are several astronomical telescope kits that can be purchased at a relatively low price.
- However, when children and students individually purchase and use it, it is not enough for performance and price. **Our new goal is "one telescope for one family".**
- **NAOJ team would like to develop an inexpensive assembly type small astronomical telescope and distribute at a low price to all over the world.**

“You are Galileo!” Project II: The educational use of assembled small astronomical telescope kit



Nowadays, STEAM education and Active Learning are in demand in schools.

However, it is generally difficult to conduct evening and nighttime astronomical observation sessions at schools for the following reasons.

(1) Ensuring the safety of children and students when they return home

(2) Faculty work time management

(3) How students spend their time after school,

(4) In addition, from the viewpoint of COVID-19 prophylaxis, there is a risk of infection at the viewing events, which are prone to contact infection and high concentrations of COVID-19.

In this study, we will investigate whether it is possible for each student to bring home an astronomical telescope kit developed by NAOJ and observe stars at home.

Development Tool:
Kaifu-NAOJ Telescope Kit







Specifications

Objective lens	Diameter 50 mm, Focal length 399 mm Two achromatic lenses
Magnification	16x and 66x (replaceable eyepieces)
Full length	450 mm (about 490 mm at maximum extension)
Maximum diameter	67 mm (excluding protrusions)
Weight	Approx. 265 g
Eye pieces	25 mm (Huygens type) 6 mm (Plössl type)

Specifications







IAU100 Special Version
(signed by IAU President)

Kaifu-NAOJ Telescope Kit









Standard outer box design

Kaifu-NAOJ Telescope Kit



Views of the first hour of the lesson plan

After the presentation of the task, Teacher explained how to use the telescope Kit and precautions.
Students actually set up the telescope and practiced focusing on distant objects.



The achievements of IAU100 year and possibility of future development

- Furthermore, **350 kits** from the initial manufacturing lot were distributed free-of-charge for worldwide IAU 100th Anniversary (IAU100) activities in 26 countries, including educator training workshops as part of the IAU100 Open Astronomy Schools Global Project, implemented in 2019.
- In the future, we hope to realize the wishes of the late Norio Kaifu by distributing Kaifu–NAOJ Telescope Kits to children around the world, specially in disadvantaged areas.



Teacher at the Sahrawi Refugee camps near Tindouf, Algeria, learing how to use the Kaifu-NAOJ Telescope.
Credit: GalileoMobile

Kaifu-NAOJ Telescope Kit







Reference：

Kaifu-NAOJ telescope kit website：
https://www.nao.ac.jp/study/naoj-tel-kit/en/