

# Kosuke TAKAHASHI

## Curriculum Vitae

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📧 Kosuke TAKAHASHI

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### Interests

Galaxy formation and evolution, Massive galaxies, Galaxy quenching, High- $z$  Universe

### Education

- 2025/04 – Present **Ph.D course of Astronomy**, *Tohoku University*, Sendai, Japan
- 2024/10 – Present **Program student of Graduate Program on Physics for the Universe (GP-PU)**, *Tohoku University*, Sendai, Japan
- 2025/04 – Present **Program student of Advanced Graduate School Research Initiative for International Scholarly Excellence Program (AGS RISE Program)**, *Tohoku University*, Sendai, Japan
- 2025/03 **Master of Science in Astronomy**, *Tohoku University*, Sendai, Japan
- 2023/03 **Bachelor of Science in Astronomy**, *Tohoku University*, Sendai, Japan

### Awarded observing time as a P.I.

- Subaru/MOIRCS “**Hunting ultra-massive quiescent galaxies in protoclusters at  $z \sim 5.2-5.3$** ”, *S25B0009N*, Imaging, 1.0 night
- Subaru/MOIRCS “**Hunting ultra-massive quiescent galaxies in the structures at  $z \sim 5.2-5.3$** ”, *S25A0006N*, Imaging, 2.0 nights (RETRY)
- Keck/MOSFIRE “**Confirmation of red monsters; ultra-massive quiescent galaxies at  $z \sim 5$** ”, *S24B0019N*, *S452*, Spectroscopy, 0.5 nights  
○ Subaru-Keck time exchange program
- Subaru/MOIRCS “**Hunting ultra-massive quiescent galaxies in the structures at  $z \sim 5.2-5.3$** ”, *S24A0025N*, Imaging, 1.0 night
- Subaru/MOIRCS “**Hunting massive monsters in a proto-cluster at  $z = 5.3$  with the K4 filter**”, *S23B0145S*, Imaging, 0.5 nights  
○ Rank-A

### Observing Experience

- Imaging Subaru/SWIMS, Subaru/MOIRCS
- Spectroscopy Subaru/MOIRCS, Keck/MOSFIRE

### International Conferences

1. Kosuke Takahashi, et al., “From Low-mass to High-mass: Exploring the Nature of Balmer Break Galaxies at  $z \sim 5$ ”, IAU Symposium 396: Massive Galaxies Across the Universe, INAF and Univ.

Federico II, Italy, June 9-13, 2025, (Oral)

2. Kosuke Takahashi, et al., “Ruby-Rush: Investigating accelerated growth of massive galaxies at  $z \sim 5$ ”, 10th Galaxy Evolution Workshop, ASIAA, Taiwan, August 6-9, 2024, (Oral)
3. Kosuke Takahashi, et al., “Ruby-Rush: Investigating massive quiescent galaxies at  $z \sim 5$  with SWIMS-18”, The Second SUPER-IRNET Workshop, Beppu, July 23-26, 2024, (Oral)
4. Kosuke Takahashi, et al., “Ruby-Rush: Investigating accelerated growth of massive galaxies at  $z \sim 5$ ”, ELT Science in Light of JWST, Tohoku University, Sendai, June 3-7, 2024, (Oral)
5. Kosuke Takahashi, et al., “Ruby-Rush: Investigating accelerated growth of massive quiescent galaxies in  $z \sim 5$  protoclusters”, First Structures in the Universe 2023, Université de Paris Cité, France, September 4-8, 2023, (Oral)
6. Kosuke Takahashi, et al., “Accelerated evolution of massive galaxies in high- $z$  protoclusters”, International Leading Research kickoff meeting, NAOJ, May 31- June 2, 2023, (Poster)
7. Kosuke Takahashi, et al., “Ruby-Rush: The quest of red monsters lurking in the protoclusters at  $z \sim 5$ ”, The First SUPER-IRNET Workshop, NAOJ, March 23-24, 2023, (Poster)
8. Kosuke Takahashi, et al., “Ruby-Rush: The quest of red monsters lurking in the protoclusters at  $z \sim 5$ ”, 9th Galaxy Evolution Workshop, Kyoto University, February 20-23, 2023, (Oral)

## Domestic Conferences

1. 高橋宏典, 森下貴弘, 他, “ $z \sim 5.5$  のバルマーブレーク銀河で探る星形成活動の抑制機構”, 日本天文学会 2025 年春季年会, X67a, 茨城大学 (水戸市民会館), 2025 年 3 月, (Oral)
2. 高橋宏典, 兒玉忠恭, 他, “Accelerated evolution of red monsters in high- $z$  protoclusters”, 日本天文学会 2023 年秋季年会, X06a, 名古屋大学, 2023 年 9 月, (Oral)
3. 高橋宏典, “Ruby-Rush: Accelerated evolution of massive quiescent galaxies in high- $z$  protoclusters”, 2023 年度第 53 回天文・天体物理夏の学校銀河・銀河団分科会 a10, 東京大学, 2023 年 8 月, (Oral)
4. 高橋宏典, 兒玉忠恭, 他, “Ruby-Rush:  $z \sim 5$  の原始銀河団で加速的に誕生する巨大銀河の探査”, 日本天文学会 2023 年春季年会, X24a, 立教大学, 2023 年 3 月, (Oral)

## Seminar and Colloquium

1. Kosuke Takahashi, “Investigating Galaxy Mass Growth and ”Death” One Billion Years after the Big Bang”, GP-PU Seminar, GP-PU, Tohoku University, Sendai, March 26, 2025
2. Kosuke Takahashi, “Investigating galaxy mass growth and quenching mechanisms one billion years after the Big Bang”, Colloquium, Astronomical Institute, Tohoku University, Sendai, November 11, 2024
3. Kosuke Takahashi, “Ruby-Rush: Investigating massive quiescent galaxies at  $z \sim 5$  with Subaru Telescope”, Subaru Seminar, Subaru Telescope (Hilo Office), Hawaii, May 22, 2024

## Skills

Programming Python, IRAF, UNIX, C++  
Tools Git

## Fellowships and Awards

2024/04-2025/03 **Global Hagi Scholarship**, Tohoku University