Curriculum Vitae

札本　佳伸　（ふだもと　よしのぶ）/ Yoshinobu Fudamoto

Phone: +81-43-290-2749
Email: yoshinob.fudamoto@gmail.com
Website:https://yfudamoto.github.io

現職/Current Position

Position: Project Designated Assistant Professor
Institute: Chiba University, Center for Frontier Science
Address: 1-33 Yayoi-cho, Inage-ku, Chiba 263-8522, Japan

職歴/Academic Career

2024 — Now　　**Visiting scholar at the University of Arizona**
2023 — Now　　Project Designated Assistant Professor, Chiba University
2020 — 2023　　Waseda University, NAOJ ALMA project Postdoctoral Research Fellow

教育/Education — PhD year 2020

2016 — 2020　University of Geneva, Geneva, Switzerland, PhD (Supervisor: Pascal Oesch)
2013 — 2016　Ludwig-Maximilians-Universität München, Munich, Germany, MSc
2008 — 2012　Kyoto University, Kyoto, Japan, BSc

研究内容/Research Interest

宇宙初期における銀河の観測的研究：ビッグバンにより宇宙が誕生してから数億年以内に誕生した「初代銀河」の形成と成長の仕組みを望遠鏡を用いた観測により明らかにする研究に取り組んでいる。銀河内部の星、ガス、ダストや銀河の大規模構造といった多様な物理的性質がどのように関連し合うかを解き明かし、総合的に理解することが目標である。

Observations of galaxies in the early Universe: I am investigating the formation and evolution of galaxies within the first billion years after the Big Bang. Using multi-wavelength observations from optical/near-infrared telescope and radio telescopes, I aim to understand how various physical properties, including stars, gas, dust within galaxies, and large-scale structures, interact and evolve in a comprehensive framework.

所属学会/Academic Society

日本天文学会 / Astronomical Society of japan
光学赤外線天文連絡会 / Group of Optical and Infrared Astronomers
宇宙電波懇談会 / Japan Radio Astronomy Forum

受賞歴/Awards

2024年度 日本天文学会　研究奨励賞 / Astronomical Society of Japan Young Astronomer Award
2021　Prix Plantamour-Prévost, University of Geneva, Switzerland

教育歴/Courses

2024年前期　国際福祉大学　成田キャンパス　初年度数学

研究業績リスト

獲得資金 / Approved External Funding

Jun. 2025　日本天文学会　早川幸男海外渡航援助基金（代表: 350千円）

Apr. 2023 — Mar. 2026　**科研費 若手研究**（代表: 3,640千円）

プレスリリース / Press Release

Jan. 2025　“Beyond the 'Dragon Arc,' behold a treasure trove of unseen stars”
The University of Arizona / Chiba University

Dec. 2022　“Discovering Rare Red Spiral Galaxy Population from Early Universe with the James Webb Space Telescope”
Waseda University

Sept. 2021　“131億年前の宇宙で塵に深く埋もれた「隠れ銀河」を複数発見”
National Astronomical Observatory of Japan / Waseda University

Oct. 2020　“生まれたばかりの宇宙で成熟した銀河が急速に出現していた”
National Astronomical Observatory of Japan / Waseda University

国際研究会招待講演 / Invited Talks in International Conferences

Jun. 2025　Opening Extreme Galaxy Observations through Individual Stars in Cosmological Distances
at European Astronomical Society Annual Meeting

Sept. 2024　Galaxy Evolution during the Cosmic Reionization: New Insights from ALMA and JWST
at Views on the multi-phase interstellar medium in galaxies

Feb. 2021　A Panchromatic View of Galaxy Build-up in the First 2 Gyrs of Cosmic History
at East Asia ALMA Science Workshop

国内研究会招待講演 / Invited Talk in Japanese Conference

Mar. 2022　Terahertz Telescope in the Antarctic Workshop

Mar. 2022　The symposium of the Japan Radio Astronomy Forum

国際研究会一般講演 / Talks in International Conferences

Jun. 2025　European Astronomical Society Annual Meeting: SS16 A new picture of galaxy evolution from Cosmic Dawn to Cosmic Noon: after the first years of JWST operation and towards the ELT

May 2025　GALAXY ORIGINS IN THE JWST ERA: a “crisol” of stars, ISM, and super massive blackholes in the City of the Three Cultures

Dec. 2024　Evolution of Dust and Gas throughout Cosmic Time

Feb. 2024　Galaxies & AGN with the first Euclid data and beyond

Nov. 2023　Resolving the Extragalactic Universe with ALMA & JWST

Jun. 2022　European Astronomy Society Annual Meeting 2022

Jun. 2021　European Astronomy Society Annual Meeting 2021

Sept. 2019　Views on the interstellar medium in galaxies in the ALMA era

国内研究会一般講演 / Talks in Japanese Conferences

Mar. 2025　Bi-annual meeting of the astronomical society of Japan

Jun. 2024　ELT Science in Light of JWST

Jan. 2024　ALMA workshop 2023A

Sept. 2023　Bi-annual meeting of the astronomical society of Japan

Mar. 2023　Bi-annual meeting of the astronomical society of Japan

Feb. 2022　Galaxy evolution workshop

Sept. 2021　Bi-annual meeting of the astronomical society of Japan

セミナー講演 / Seminar Talks

Mar. 2024 “ALMA and JWST exploration of high-redshift galaxies (and stars)”
Tsukuba University

Dec. 2022 “Normal, Dust Obscured Galaxies in the Epoch of Reionization and future prospects”
Ehime University

Jul. 2022 “The REBELS ALMA Survey: Average [CII] 158um Properties of Star-Forming Galaxies from z~7 to z~4”
Seminar talk in National Astronomical Observatory of Japan

May 2022 “Normal, Dust-Obscured Galaxies in the Epoch of Reionization”
Laboratoire d’Astronophysique de Marseille, Gent University tele-talk

Sept. 2021 “The Rise of Normal, Dusty Galaxies During Cosmic Reionization”
The University of Arizona, EURECA seminar

Dec. 2020 “New Pictures of High-Redshift Galaxies Captured by ALMA”
Seminar talk in National Astronomical Observatory of Japan

獲得望遠鏡時間（PI） / Approved Telescope Time as a PI

JWST-Cycle4 (55.3 hours) “The Dragon survey: A Direct Probe of the Early Stellar Luminosity Function and Dark Matter through Multi-cycle Multi-cadence Microlensing at z=0.73”

Keck-25B (1 night) “Probing a Lyα Bubble in the Galaxy Over-Density at z = 8.47”

ALMA-Cycle11 (24.4 hours) “Toward the Representative [CII] 158um Lines in the Reionization Era”

ALMA-Cycle10 (10 hours) “The ALMA-JWST synergy: [OIII]88um and [CII]158um emission line observations of z=9.51 galaxy identified by JWST”

ALMA-Cycle10 (17.3 hours) “[CII] 158um emission line and dust observation of the most distant known overdensity of galaxies at z=7.88”

ALMA-Cycle9 (18.5 hours) “Probing origins of the [CII] emission in the Epoch of Reionization”

ALMA-Cycle9 (13.5 hours) “Tracing Neutral Star-Forming Gas in the EoR using the [OI]-145um emission line”

ALMA-Cycle9 (10 hours) “Dust Continuum Observations of Galaxies at z~5: Revealing the Evolution of Dust-Obscuration at High Redshift”

ALMA-Cycle9 (13.2 hours) “How hot are high-redshift galaxies?: constraining dust temperatures at z~5”

ALMA-Cycle8 (7.3 hours) “Spatially Resolving [CII] in the Brightest 0.5-L* Galaxy at z~6”

ALMA-Cycle8 (5.6 hours) “Investigating Sites of Dense Galaxy Build-up in the Epoch of Reionization”

他Co-Investigatorとして、ALMA望遠鏡ラージプログラム 1 件含む77件の観測時間獲得、JWST望遠鏡観測プログラム7件（計464時間）獲得

As a Co-Investigator, 77 observing programs, including one ALMA telescope large program, were approved

国際共同研究 / International Research Network

共著論文を出版済みの主な国際共同研究先機関を以下に挙げる。

米国：アリゾナ大学、カリフォルニア工科大学、ハーバード大学、UCバークレー校、**スイス**:ジュネーブ大学、**オランダ**：ライデン大学、**スペイン**：バレンシア大学、**フランス**：Laboratoire d'Astrophysique de Marseille、**ドイツ**：ハイデルベルグ大学、**イギリス**：ケンブリッジ大学、**中国**：清華大学

論文出版リスト

2025年7月時点で**合計104編**の査読付き論文が出版済み、または出版予定である。加えて、現在**24編**の論文が査読中である。**総引用数は6674回、H-indexは47** (NASA Astrophysics Data System 調べ)。
As of July, 2025, a total number of **104 peer-reviewed papers** were published. Additionally, 24 papers were submitted and is under peer review. The total number of **citation is 6674, H-index is 47** (NASA Astrophysics Data System).

査読済み論文（筆頭著者）

第一著者として出版済み論文が11編、主要論文５編については赤字で示す。
A total of 11 papers have been published in which the applicant is the first/corresponding author.

[1] “Identification of more than 40 gravitationally magnified stars in a galaxy at redshift 0.725“
Fudamoto, Y, Sun, F., Diego, J. M., et al., 2025, **Nature Astronomy**, 9, 428

[2] “The NOEMA observations of GN-z11: constraining the neutral interstellar medium and dust formation in the heart of cosmic reionization at z = 10.6”
Fudamoto, Y., Oesch, P., Walter, F., et al., 2024, MNRAS, 530, 340

[3] “The Extended [CII] under Construction? Observation of the brightest high-z lensed star-forming galaxy at z = 6.2”
Fudamoto, Y., Inoue, Akio K., Coe, Dan et al., 2024, ApJ, 961, 71

[4] “Estimating dust temperature and Far-IR luminosity of high-redshift galaxies using ALMA single-band continuum observations”
Fudamoto, Y., Inoue, A. K., Sugahara, Y., 2023, MNRAS, 521, 2962

[5] “Red Spiral Galaxies at Cosmic Noon Unveiled in the First JWST Image”
Fudamoto, Y., Inoue, A. K., Sugahara, Y., 2022, ApJ letters, 983, L24

[6] “The ALMA REBELS Survey: Average [C II] 158 μm Sizes of Star-forming Galaxies from z 7 to z 4”
Fudamoto, Y., Smit, R., Bowler, R. A. A., et al., 2022, ApJ, 934, 144

[7] “Normal, dust-obscured galaxies in the epoch of reionization”
Fudamoto, Y., Oesch, P. A., Schouws, S., et al., 2021, **Nature**, 597, 489

[8] “The ALPINE-ALMA [CII] survey. Dust attenuation properties and obscured star formation at z ~ 4.4-5.8”
Fudamoto, Y., Oesch, P. A., Faisst, A., et al., 2020, Astronomy&Astrophysics, 643, 4

[9] “A3COSMOS: the dust attenuation of star-forming galaxies at z = 2.5-4.0 from the COSMOS-ALMA archive”
Fudamoto, Y., Oesch, P. A., Magnelli, B., et al., 2020, MNRAS, 491, 4724

[10] “The most distant, luminous, dusty star-forming galaxies: redshifts from NOEMA and ALMA spectral scans”
Fudamoto, Y., Ivison, R. J., Oteo, I., et al., 2017, MNRAS, 472, 2028

[11] “The dust attenuation of star-forming galaxies at z ~ 3 and beyond: New insights from ALMA observations”
Fudamoto, Y., Oesch, P. A., Schinnerer, E., et al., 2017, MNRAS, 472, 483

査読済み論文（第2著者）

[1] “Updated Measurements of [O III] 88 μm, [C II] 158 μm, and Dust Continuum Emission from a z = 7.2 Galaxy”
Ren, Y. W., Fudamoto, Y., Inoue, A. K., et al., 2023, ApJ, 945, 69

[2] “ALMA characterizes the dust temperature of z ~ 5.5 star-forming galaxies”
Faisst., A. L., Fudamoto, Y., Oesch P. A., et al., 2020, MNRAS, 498, 4192

[3] “The ALPINE-ALMA [CII] survey: Data processing, catalogs, and statistical source properties”
Béthermin, M., **Fudamoto, Y.**, Ginolfi, M., et al., 2020, Astronomy&Astrophysics, 643, A2

提出済み論文（第一著者）

2025年7月現在、**計25編**の論文が提出済み・査読中である。そのうち応募者が第一著者として提出した論文し査読中の2編を以下に示す。
As of July 2025, a total of 25 papers have been submitted and are currently under peer review. Among them, the applicant is the first/corresponding author of two submitted papers, which are listed below.

[1] “ALMA Observations of [OI]145um and [NII]205um Emission lines from Star-Forming Galaxies at z~7”
Fudamoto, Y., Inoue, A. K., Bouwens, R., et al., 2025, submitted to ApJ, arXiv: 2504.03831

[2] “SAPPHIRES: A Galaxy Over-Density in the Heart of Cosmic Reionization at z=8.47”
Fudamoto, Y., Helton, J. M., Lin, X., et al., 2025, submitted to ApJ, arXiv: 2503.15597

査読済み論文（第３著者以下）

2025年7月現在、**計93編**の査読付き論文が共著論文として出版済みである。そのうち、応募者が大きく貢献し、高い評価を得た論文10編を以下に示す。
As of July 2025, a total of 92 peer-reviewed papers have been published including the applicant as a co-author. Among them, below are 10 selected peer reviewed papers, which the applicant has made significant contribution and has received high values.

[1] “A high black-hole-to-host mass ratio in a lensed AGN in the early Universe”
Furtak, L. J., et al., (incl. **Fudamoto, Y.**), 2024, **Nature**, 628, 57

[2] “Most of the photons that reionized the Universe came from dwarf galaxies”
Atek, H., et al., (incl. **Fudamoto, Y.**), 2024, **Nature**, 626, 975

[3] “Reionization Era Bright Emission Line Survey: Selection and Characterization of Luminous Interstellar Medium Reservoirs in the z > 6.5 Universe”
Bouwens, R., J., et al., (incl. **Fudamoto, Y.**), 2022, ApJ, 931, 160

[4] “Reionization and the ISM/Stellar Origins with JWST and ALMA (RIOJA): The Core of the Highest-redshift Galaxy Overdensity at z = 7.88 Confirmed by NIRSpec/JWST”
Hashimoto, T., Álvarez-Márquez, J., **Fudamoto, Y.**, et al., 2023, ApJ Letter, 955, L2,

[5] “The ALPINE-ALMA [C II] survey. Little to no evolution in the [C II]-SFR relation over the last 13 Gyr”
Schaerer, D., et al. (incl. **Fudamoto, Y.**), 2020, Astronomy & Astrophysics, 643, 3

[6] “The ALPINE-ALMA [C II] Survey: Multiwavelength Ancillary Data and Basic Physical Measurements”
Faisst, A. L., et al., (incl. **Fudamoto, Y.**), 2020, ApJS, 247, 61

[7] “Unveiling the nature of infrared bright, optically dark galaxies with early JWST data”
Barrufet, L., et al., (incl. **Fudamoto, Y.**), 2023, MNRAS, 522, 449

[8] “RIOJA. Complex Dusty Starbursts in a Major Merger B14-65666 at z = 7.15”
Sugahara, Y., et al., (incl. **Fudamoto, Y.**), 2025, ApJ, 981, 135

[9] “Accelerated formation of ultra-massive galaxies in the first billion years”
Xiao, M., et al., (incl. **Fudamoto Y.**), 2024, **Nature**, 635, 311

[10] “A Search for H-Dropout Lyman Break Galaxies at z 12-16”
Harikane, Y., et al., (incl. **Fudamoto Y.**), 2022, ApJ, 929, 1