# Dr. Ryo Tazaki



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#### PERSONAL INFORMATION

Name Ryo Tazaki
Date of Birth Sex Ryo Tazaki

Chiba, Japan
Male

Nationality Japan

Languages Japanese (native), English (fluent)

# **EDUCATION**

Department of Astronomy, Kyoto University

Advisor: Prof. Dr. Shin Mineshige

Thesis: Multiwavelength polarimetric properties of protoplanetary disks

APR. 2012 – MAR. 2014 M. Sc. in Astronomy

Department of Astronomy, Kyoto University

Advisor: Prof. Dr. Shin Mineshige

Thesis: Outward motion of porous dust aggregates in protoplanetary disks

APR. 2008 - MAR. 2012 **B. Sc. in Physics** 

Department of Physics and Mathematics, Aoyama Gakuin University

Advisor: Prof. Dr. Ryo Yamazaki

Thesis: Theoretical explanation for X-ray spectrum of Supernova Remnant SN 1006 (in Japanese)

# WORK EXPERIENCE

APR. 2017 - PRESENT JSPS Research Fellowship for Young Scientist (PD)

Department of Astronomy, Tohoku University/Japan Society for the Promotion of Science

APR. 2019 - SEP. 2019 Lecturer (part-time)

Faculty of Liberal Arts, Tohoku Gakuin University

Department of Astronomy, Kyoto University/Japan Society for the Promotion of Science

# **AWARDS**

2018 **The Best Poster Award** at the Cosmic Dust XI

2016 The Best Poster Award at the Cosmic Dust IX

2015 The Best Presentation Award at the Annual meeting of Japanese Society for Planetary Science

2015 The Best Poster Award at the Cosmic Dust VIII

#### REFEREED PUBLICATIONS

- 15. Kandori, Tomisaka, Saito, Tamura, Matsumoto, **Tazaki**, Nagata, Kusakabe, Nakajima, Kwon, Nagayama, and Tatematsu: Distortion of Magnetic Fields in a Starless Core VI: Application of Flux Freezing Model and Core Formation of FeSt 1-457. The Astrophysical Journal, in press.
- 14. Kandori, Tamura, Saito, Tomisaka, Matsumoto, Kusakabe, Kwon, Nagayama, Nagata, Tazaki, and Tatematsu: Distortion of Magnetic Fields in Barnard 68. The Astrophysical Journal, in press.
- 13. Ohno, Okuzumi, and Tazaki: Clouds of Fluffy Aggregates: How They Form in Exoplanetary Atmospheres and Influence Transmission Spectra. The Astrophysical Journal, in press.
- 12. Tazaki, Tanaka, Kataoka, Okuzumi, Muto: Unveiling Dust Aggregate Structure in Protoplanetary Disks by Millimeter-wave Scattering Polarization. The Astrophysical Journal (2019), 885, 52
- II. Tazaki, Tanaka, Muto, Kataoka, and Okuzumi: Effect of dust size and structure on scattered-light images of protoplanetary disks. Monthly Notices of the Royal Astronomical Society (2019), 485, 4951
- 10. Okuzumi and Tazaki: Nonsticky Ice at the Origin of the Uniformly Polarized Submillimeter Emission from the HL Tau Disk. The Astrophysical Journal (2019), 878, 132
- 9. Fujita, Tazaki, and Toma: Hunting axion dark matter with protoplanetary disk polarimetry. Physical Review Letters (2019), 122, 191101 (Highlighted paper)
- 8. Kataoka, Okuzumi, and Tazaki: Millimeter-wave Polarization due to Grain Alignment by the Gas Flow in Protoplanetary Disks. The Astrophysical Journal Letters (2019), 874, L6
- 7. Tamanai, Vogt, Huck, Mick, Zimmerman, Tazaki, Mutschke, Pucci: Experimental verification of agglomeration effects in infrared spectra on micron-sized particles. Astronomy & Astrophysics (2018), 619, A110 (Highlighted paper)
- 6. Kandori, Nagata, Tazaki, Tamura, Tomisaka, Kusakabe, Nakajima, Kwon, Nagayama, and Tatematsu: Distortion of Magnetic Fields in a Starless Core V: Near-infrared and Submillimeter Polarization in FeSt 1-457. The Astrophysical Journal (2018), 868, 94
- 5. Tazaki and Tanaka: Light Scattering by Fractal Dust Aggregates. II. Opacity and Asymmetry parameter. The Astrophysical Journal (2018), 860, 79
- 4. Ichikawa and Tazaki: Cooling timescale of dust tori in dead active galactic nuclei. The Astrophysical Journal (2017), 844, 21
- 3. Tazaki, Lazarian, and Nomura: Radiative Grain Alignment In Protoplanetary Disks: Implications for Polarimetric Observations. The Astrophysical Journal (2017), 839, 56
- 2. Tazaki, Tanaka, Okuzumi, Kataoka, and Nomura: Light Scattering by Fractal Dust Aggregates. I. Angular Dependence of Scattering. The Astrophysical Journal (2016), 823, 70
- 1. Tazaki and Nomura: Outward Motion of Porous Dust Aggregates by Stellar Radiation Pressure in Protoplanetary Disks. The Astrophysical Journal (2015), 799, 119

# SELECTED TALKS

NOV. 2019	Planet Formation Workshop 2019, NAOJ, Japan
NOV. 2019	(invited) 14th Asia-Pacific Physics Conference, Borneo, Malaysia
OCT. 2019	In the Spirit of Lyot 2019, Tokyo, Japan
MAR. 2019	Polarimetry in the ALMA era: a new crossroads of astrophysics, NAOJ, Japan
JAN. 2019	(invited) Astronomy Colloquium, ASIAA, Taiwan

NOV. 2018	(invited) ALMA Workshop: From disk to solar system, Tokyo, Japan (in Japanese)
SEP. 2018	Japan-Germany meeting on Exoplanets and Planet Formation, Edesheim, Germany
MAY. 2018	(invited) Annual meeting of Japan Geoscience Union 2018, Makuhari, Japan (in Japanese)
DEC. 2017	(invited) A role of B-field in star formation and galaxy structure, Kagoshima University, Japan (in Japanese)
NOV. 2017	(invited) DTA Workshop 2019, Mizusawa, Japan
OCT. 2017	Workshop on gaseous debris disks, RIKEN, Japan
JUL. 2017	(invited) Disk workshop 2017, Kyoto University, Japan (in Japanese)
MAY. 2017	(invited) Annual meeting of Japan Geoscience Union 2017, Makuhari, Japan (in Japanese)
AUG. 2017	Cosmic Dust X, NAOJ, Japan
MAR. 2017	East-Asian ALMA Science Workshop 2016, NTHU, Taiwan
FEB. 2017	(invited) Astronomy Colloquium, NAOJ, Japan
SEP. 2016	Japan-Germany planet & disk workshop, Ishigaki, Japan
APR. 2016	Group Seminar, University of Amsterdam, the Netherlands
MAR. 2016	Protoplanetary discussions, Edinburgh, UK
FEB. 2016	Exoplanets and Disks: Their Formation and Diversity III, Ishigaki, Japan
SEP. 2015	Silicates in space, University of Heidelberg, Germany
AUG. 2014	Cosmic Dust VII, Osaka Sangyo University, Japan

# **REFERENCES**

# Prof. Dr. Hidekazu Tanaka

AFFILIATION Department of Astronomy, Tohoku University

EMAIL hidekazu@astr.tohoku.ac.jp

# Prof. Dr. Hideko Nomura

AFFILIATION Division of Science, National Astronomical Observatory of Japan

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