

# Ohyama, Youichi

## Senior Research Scientist

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### Education and Positions

- Senior Research Scientist at ASIAA (2016 ~ present)
- Associate Research Scientist at ASIAA (2009 ~ 2016)
- Visiting Scholar at ASIAA (2008 ~ 2009)
- Aerospace Project Research Associate (AKARI) at ISAS/JAXA (2005 ~ 2008)
- PhD fellow at ISAS/JAXA (2005)
- Support Astronomer (FOCAS) of Subaru Telescope (RCUH/NAOJ) (2000 ~ 2004)
- PhD fellow at Opt/IR division of NAOJ (1999 ~ 2000)
- Research Fellow (DC1) of the Japan Society for the Promotion of Science (JSPS) (1996 ~ 1999)
- Receive PhD at Institute of Astronomy, Faculty of Science, Tohoku University (1999)
- PhD course student at Institute of Astronomy, Faculty of Science, Tohoku University (1996 ~ 1999)

### Research Interests

Optical/Infrared Spectroscopic Studies of Star-forming Galaxies, (U)LIRGs, and high-*z* AGNs (quasars)

### Journal Papers (published with Academia Sinica)

1. Yoshiki Toba, Tohru Nagao, Wei-Hao Wang, Hideo Matsuhara, Masayuki Akiyama, Tomotsugu Goto, Yusei Koyama, (Youich Ohyama), Issei Yamamura, "*Far-infrared Properties of Infrared-bright Dust-obscured Galaxies Selected with IRAS and AKARI Far-infrared All-sky Survey*", *ASTROPHYSICAL JOURNAL*: 840(1), 21-30, 2017-05 [SCI]
2. Ji-Jia Tang, Tomotsugu Goto, (Youichi Ohyama), Wen-Ping Chen, Fabian Walter, Bram Venemans, Kenneth C. Chambers, Eduardo Banados, Roberto Decarli, Xiaohui Fan, Emanuele Farina, Chiara Mazzucchelli, Nick Kaiser, Eugene A. Magnier, PS1 collaboration, "*A Quasar Discovered at redshift 6.6 from Pan-STARRS1*", *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*: 466, 4568, 2017-04 [SCI]

3. Im M; Jun H; Kim D; ...; (Ohyama Y); et al., "*AKARI Spectroscopy of Quasars at 2.5 - 5  $\mu\text{m}$* ", Publications of The Korean Astronomical Society: 32(1), 163-167, 2017-03
4. Goto T; Toba Y; Utsumi Y; ...; (Ohyama Y); et al., "*Hyper Suprime-Camera Survey of the Akari NEP Wide Field*", Publications of The Korean Astronomical Society: 32(1), 225-230, 2017-03
5. Yoshiki Toba\*, Shinki Oyabu, Hideo Matsuhara, Daisuke Ishihara, Matt A. Malkan, Takehiko Wada, (Youichi Ohyama), Hirokazu Kataza, Satoshi Takita, Chisato Yamauch, "*Luminosity Dependence of the Covering Factor of the Dust Torus in Active Galactic Nuclei Revealed by Akari*", Publications of The Korean Astronomical Society: 32 (1), 193-195, 2017-03
6. (Ohyama Youichi)\*, Matsushita Satoki, Oi Nagisa, Sun Ai-Lei, "*Ground-based Mid-infrared Study of the Compton-thick AGN in M51 at 10-100 pc Scale*", ASTROPHYSICAL JOURNAL: 835, 169, 2017-02 [SCI]
7. Tamura, N., ..., (Ohyama, Y.), et al., "*Prime Focus Spectrograph (PFS) for the Subaru Telescope: Overview, recent progress, and future perspectives*", Proceedings of SPIE 9908: 9908, 1, 2016-08
8. Baba S, Nakagawa T, Shirahata M, ... (Ohyama Y), et al., "*Revised wavelength and spectral response calibrations for AKARI near-infrared grism spectroscopy: Cryogenic phase*", PUBLICATIONS OF THE ASTRONOMICAL SOCIETY OF JAPAN: 68 (2), 27, 2016-04 [SCI]
9. Yoshida M., Yagi M., (Ohyama Y.), et al., "*Giant Ha Nebula Surrounding the Starburst Merger NGC 6240*", ASTROPHYSICAL JOURNAL: 820, 48, 2016-03 [SCI]
10. Alice P.-Y. Yu, Jeremy Lim, (Youichi Ohyama), Jeffrey C.-C. Chan, and T. Broadhurst, "*The High-velocity System: Infall of a Giant Low-surface-brightness Galaxy toward the Center of the Perseus Cluster*", ASTROPHYSICAL JOURNAL: 814, 101, 2015-11 [SCI]
11. A. Solarz, A. Pollo, T. T. Takeuchi, K. Malek, H. Matsuhara, G. J. White, A. Peřiak, T. Goto, T. Wada, S. Oyabu, T. Takagi, Y. Ohyama\*, C. P. Pearson, H. Hanami, T. Ishigaki and M. Malkan, "*Clustering of the AKARI NEP deep field 24  $\mu\text{m}$  selected galaxies*", ASTRONOMY & ASTROPHYSICS: 582, A58, 2015-10 [SCI]
12. Goto, T., Oi, N., Ohyama, Y.\*, et al., "*Evolution of mid-infrared galaxy luminosity functions from the entire AKARI NEP deep field with new CFHT photometry*", Monthly Notices of the Royal Astronomical Society: vol 452, p 1684, 2015-09 [SCI]
13. Sugai, H., ..., Ohyama, Y.\*, et al., "*Prime Focus Spectrograph for the Subaru telescope: massively multiplexed optical and near-infrared fiber spectrograph*", Journal of Astronomical Telescopes, Instruments, and Systems: 1 (3), 035001, 2015-07

14. (Ohyama Youichi)\*, Terashima Yuichi, Sakamoto Kazushi, *"Infrared and X-Ray Evidence of an AGN in the NGC 3256 Southern Nucleus"*, ASTROPHYSICAL JOURNAL: 805, 162, 2015-06 [SCI]
15. Jun Hyunsung David, Im Myungshin, Lee Hyung Mok, [Ohyama Youichi], Woo Jong-Hak, Fan Xiaohui, Goto Tomotsugu, Kim Dohyeong, Kim Ji Hoon, Kim Minjin Lee, Myung Gyoon, Nakagawa Takao, Pearson Chris, Serjeant Stephen, *"Rest-frame Optical Spectra and Black Hole Masses of  $3 < z < 6$  Quasars"*, ASTROPHYSICAL JOURNAL: vol 806, p109, 2015-06 [SCI]
16. Buat V., Oi N., Heinis S., Ciesla L., Burgarella D., Matsuhara H., Malek K., Goto T., Malkan M., Marchetti L., [Ohyama Y.], Pearson C., Serjeant S., *"Dust attenuation up to  $z \sim 2$  in the AKARI North Ecliptic Pole Deep Field"*, ASTRONOMY & ASTROPHYSICS: vol 577 p 141, 2015-05 [SCI]
17. Kataza Hirokazu, Sakon Itsuki, Wada Takehiko, Sarugaku Yuki, Fujishiro Naofumi, Ikeda Yuji, Mitani Shinji, [Ohyama Youichi], Kobayashi Naoto, *"Performance Estimation of the Mid-Infrared Camera and Spectrometer Aboard SPICA"*, Journal of Astronomical Instrumentation: Volume 4, id. 1550001, 2015-03
18. Kim Dohyeong, Im Myungshin, Kim Ji Hoon, Jun Hyunsung David, Woo Jong-Hak, Lee Hyung Mok, Lee Myung Gyoon, Nakagawa Takao, Matsuhara Hideo, Wada Takehiko, Oyabu Shinki, Takagi Toshinobu, [Ohyama Youichi], Lee Seong-Kook, *"The AKARI 2.5-5.0  $\mu$ m Spectral Atlas of Type-I Active Galactic Nuclei: Black Hole Mass Estimator, Line Ratio, and Hot Dust Temperature"*, ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES: 216, 17, 2015-01 [SCI]
19. Pearson CP; Serjeant S; Oyabu S; ...; **Ohyama Y**; et al., *"The first source counts at  $18 \mu$ m from the AKARI NEP Survey"*, MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY: 444(1), 846-859, 2014-10 [SCI]
20. David LP; Lim J; Forman W; ...; **Ohyama Y**; ...; Trung D-V, *"Molecular Gas in the X-Ray Bright Group NGC 5044 as Revealed by ALMA"*, ASTROPHYSICAL JOURNAL: 792(2), 94, 2014-09 [SCI]
21. Toba Y; Oyabu S; Matsuhara H; ...; **Ohyama Y**; et al, *"Luminosity and Redshift Dependence of the Covering Factor of Active Galactic Nuclei viewed with WISE and Sloan Digital Sky Survey"*, ASTROPHYSICAL JOURNAL: 788(1), 45, 2014-06 [SCI]
22. Oi N; Matsuhara H; Murata K; ...; **Ohyama Y**; et al., *"Optical - near-infrared catalog for the AKARI north ecliptic pole Deep field"*, ASTRONOMY & ASTROPHYSICS: 566, A60, 2014-06 [SCI]
23. Karouzos M; Im M; Trichas M; ...; **Ohyama Y**, *"A Tale of Two Feedbacks: Star Formation in the Host Galaxies of Radio AGNs"*, ASTROPHYSICAL JOURNAL: 784(2), 137, 2014-04 [SCI]

24. Murata K., Matsuhara H., Wada T., Arimatsu K., Oi N., Takagi T., Oyabu S., Goto T., (Ohyama Y.), Malkan M., Pearson C., Małek K., Solarz A., "*AKARI North Ecliptic Pole Deep Survey. Revision of the catalogue via a new image analysis*", *ASTRONOMY & ASTROPHYSICS*: 559, 132-46, 2013-11 [SCI]
25. Toba Yoshiki, Oyabu Shinki, Matsuhara Hideo, Malkan Matthew A., Ishihara Daisuke, Wada Takehiko, (Ohyama Youichi), Takita Satoshi, Yamauchi Chisato, "*The 9 and 18 Micrometer Luminosity Functions of Various Types of Galaxies with AKARI: Implication for the Dust Torus Structure of AGN*", *PUBLICATIONS OF THE ASTRONOMICAL SOCIETY OF JAPAN*: 65, 113-133, 2013-10 [SCI]
26. Yu, P.-C., Huang, K.-Y., Hwang, C.-Y., and **Ohyama, Y.**, "*TESTING THE EVOLUTIONARY SEQUENCE BETWEEN HIDDEN BROAD LINE REGION (HBLR) AND NON-HBLR SEYFERT 2 GALAXIES WITH THE 4000- $\mu$ M BREAK STRENGTHS*", *ASTROPHYSICAL JOURNAL*: 760, 30, 2013-05 [SCI]
27. **Youichi Ohyama**, Ananda Hota, "*Discovery of a possibly-single blue supergiant star in the intra-cluster region of Virgo cluster of galaxies*", *ASTROPHYSICAL JOURNAL LETTERS*: 767, 29, 2013-04 [SCI]
28. Sakamoto Kazushi, Aalto Susanne, Costagliola Francesco, Martín Sergio, (Ohyama Youichi), Wiedner Martina C., Wilner David J., "*Submillimeter Interferometry of the Luminous Infrared Galaxy NGC 4418: A Hidden Hot Nucleus with an Inflow and an Outflow*", *ASTROPHYSICAL JOURNAL*: 764, 42, 2013-02 [SCI]
29. Hanami Hitoshi, Ishigaki Tsuyoshi, Fujishiro Naofumi, Nakanishi Kouichiro, Miyaji Takamitsu, Krumpke Mirko, Umetsu Keiichi, Ohyama Youichi\*, et al., "*Star Formation and AGN activity in Galaxies classified using the 1.6 $\mu$ m Bump and PAH features at  $z = 0.4-2$* ", *PUBLICATIONS OF THE ASTRONOMICAL SOCIETY OF JAPAN*: 64, 70-109, 2012-08 [SCI]
30. Taniguchi Y., Matsubayashi K., Kajisawa M., Shioya Y., (Ohyama Y.), Nagao T., Ideue Y., Murayama T., Koda J., "*Post-starburst Tidal Tails in the Archetypical Ultra Luminous Infrared Galaxy Arp 220*", *ASTROPHYSICAL JOURNAL*: 753, 78, 2012-07 [SCI]
31. Lim Jeremy, Ohyama Youichi\*, Chi-Hung Yan, Dinh-V-Trung, Shiang-Yu Wang, "*A Molecular Hydrogen Nebula in the Central cD Galaxy of the Perseus Cluster*", *ASTROPHYSICAL JOURNAL*: Volume 744, p 112, 2012-01 [SCI]
32. Takagi T., Matsuhara H., Goto T., Hanami H., Im M., Imai K., Ishigaki T., Lee H. M., Lee M. G., Malkan M., Ohyama Y.\*, Oyabu S., Pearson C. P., Serjeant S., Wada T., White G. J., "*The AKARI NEP-Deep survey: a mid-infrared source catalogue*", *ASTRONOMY & ASTROPHYSICS*: Volume 537, A24, 2012-01 [SCI]
33. Hota Ananda, Sirothia S. K., Ohyama Youichi\*, Konar C., Kim Suk, Rey Soo-Chang, Saikia D. J., Croston J. H., Matsushita Satoki, "*Discovery of a spiral-host episodic radio*

- galaxy*", MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY: Volume 417, pp. L36-L40, 2011-10 [SCI]
34. Oyabu S., Ishihara D., Malkan M., Matsuhara H., Wada T., Nakagawa T., Ohyama Y.\*, Toba Y., Onaka T., Takita S., Kataza H., Yamamura I., Shirahata M., "*AKARI detections of hot dust in luminous infrared galaxies. Search for dusty active galactic nuclei*", ASTRONOMY & ASTROPHYSICS: Volume 529, A122, 2011-05 [SCI]
  35. Yoshida Michitoshi, Kawabata Koji S., Ohyama, Youichi\*, "*Spectropolarimetry of the superwind filaments of the starburst galaxy M82: kinematics of dust outflow*", PUBLICATIONS OF THE ASTRONOMICAL SOCIETY OF JAPAN: Volume 63, pp. S493-S503, 2011-03 [SCI]
  36. Imanishi M; Nakagawa T; Shirahata M; **Ohyama Y**; Onaka T, "*AKARI IRC Infrared 2.5-5  $\mu\text{m}$  Spectroscopy of a Large Sample of Luminous Infrared Galaxies*", ASTROPHYSICAL JOURNAL: 721(1), 1233-1261, 2010-10 [SCI]
  37. Ootsubo T; Usui F; Kawakita H; Ishiguro M; Furusho R; Hasegawa S; Ueno M; Watanabe J; Sekiguchi T; Wada T; **Ohyama Y**; Oyabu S; Matsuhara H; Onaka T; Nakagawa T; Murakami H, "*Detection of Parent H<sub>2</sub>O and CO<sub>2</sub> Molecules in the 2.5–5  $\mu\text{m}$  Spectrum of Comet C/2007 N3 (Lulin) Observed with AKARI*", ASTROPHYSICAL JOURNAL: 717(1), L66-L70, 2010-07 [SCI]
  38. Goto T; Koyama Y; Wada T; Pearson C; Matsuhara H; Takagi T; Shim H; Im M; Lee MG; Inami H; Malkan M; Okamura S; Takeuchi TT; Serjeant S; Kodama T; Nakagawa T; Oyabu S; **Ohyama Y**; Lee HM; Hwang N; Hanami H; Imai K; Ishigaki T, "*Environmental dependence of 8  $\mu\text{m}$  luminosity functions of galaxies at  $z \sim 0.8$ . Comparison between RXJ1716.4+6708 and the AKARI NEP-deep field*", Astronomy & Astrophysics: 514, id.A7, 2010-05 [SCI]
  39. T. Goto, T. Takagi, ..., **Y. Ohyama**, ..., "*Evolution of infrared luminosity functions of galaxies in the AKARI NEP-Deep field. Revealing the cosmic star formation history hidden by dust*", ASTRONOMY & ASTROPHYSICS: 514, id.A6, 2010-05 [SCI]
  40. Kaneda H; Ishihara D; Suzuki T; Ikeda N; Onaka T; Yamagishi M; **Ohyama Y**; Wada T; Yasuda A, "*Large-scale distributions of mid- and far-infrared emission from the center to the halo of M 82 revealed with AKARI*", Astronomy & Astrophysics: 514, id. A14, 2010-05 [SCI]
  41. Takagi T; **Ohyama Y\***; et al., "*Polycyclic aromatic hydrocarbon (PAH) luminous galaxies at  $z \sim 1$* ", Astronomy & Astrophysics: 514, id.A5, 2010-05 [SCI]
  42. Pearson C P; Oyabu S; Wada T; Matsuhara H; Lee HM; Kim SJ; Takagi T; Goto T; Im MS; Serjeant S; Lee MG; Ko JW; White GJ; **Ohyama Y**, "*Source counts at 15 microns from the AKARI NEP survey*", Astronomy & Astrophysics: 514, id. A8, 2010-05 [SCI]
  43. D. Ishihara, T. Onaka, ... **Y. Ohyama**, ..., "*The AKARI/IRC Mid-Infrared All-Sky Survey*", ASTRONOMY & ASTROPHYSICS: 514, id. A1, 2010-05 [SCI]

44. Oyabu S; Kawara K; Tsuzuki Y; ...; **Ohyama Y**, "*Akari Near- and Mid-Infrared Spectroscopy of Apm 08279+5255 At Z=3.91*", ASTROPHYSICAL JOURNAL: 697(1), 452-457, 2009-05 [SCI]
45. Goto T; Hanami H; Im M; ...; **Ohyama Y**; et al., "*Galaxy Clusters at  $0.9 < z < 1.7$  in the AKARI NEP Deep Field*", PUBLICATIONS OF THE ASTRONOMICAL SOCIETY OF JAPAN: 60(SP2), S531-S542, 2008 [SCI]