

## Shuta TANAKA

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### Refereed Articles

1. *A Self-regulated Stochastic Acceleration Model of Pulsar Wind Nebulae*,  
**Shuta J. Tanaka** & Wataru Ishizaki,  
Progress of Theoretical and Experimental Physics, 2024, 053E03 (12pp) (2024), Oxford University Press.  
Citation counts from ADS 0
2. *GRB 080710: a narrow, structured jet showing a late, achromatic peak in the optical and infrared afterglow?*,  
Kaori Obayashi, Ayumu Toriyama, Mayu Murakoshi, Yuri Sato, **Shuta J. Tanaka**, Takanori Sakamoto & Ryo Yamazaki,  
Journal of High Energy Astrophysics, 41, 1-12 (2024), Elsevier.  
Citation counts from ADS 0
3. *Performance of the joint LST-1 and MAGIC observations evaluated with Crab Nebula data*,  
H. Abe et al. (331th out of 369 authors),  
Astronomy and Astrophysics, 680, A66 (21pp) (2023), EDP Sciences.  
Citation counts from ADS 0
4. *Star tracking for pointing determination of Imaging Atmospheric Cherenkov Telescopes. Application to the Large-Sized Telescope of the Cherenkov Telescope Array*,  
K. Abe et al. (245th out of 276 authors),  
Astronomy and Astrophysics, 679, A90 (12pp) (2023), EDP Sciences.
5. *Observations of the Crab Nebula and Pulsar with the Large-sized Telescope Prototype of the Cherenkov Telescope Array*,  
H. Abe et al. (253th out of 291 authors),  
The Astrophysical Journal, 956, 80 (25pp) (2023), IOP Publishing.  
Citation counts from ADS 9
6. *Testing a stochastic acceleration model of pulsar wind nebulae: Early evolution of a wind nebula associated with SN 1986J*,  
**Shuta J. Tanaka** & Kazumi Kashiyama,  
Monthly Notices of the Royal Astronomical Society, 525, 2750-2757 (2023), Oxford University Press.  
Citation counts from ADS 2
7. *Multiwavelength study of the galactic PeVatron candidate LHAASO J2108+5157*,  
S. Abe et al. (273th out of 270 authors),  
Astronomy and Astrophysics, 673, A75, (16pp) (2023), EDP Sciences.  
Citation counts from ADS 11
8. *Sensitivity of the Cherenkov Telescope Array to spectral signatures of hadronic PeVatrons with application to Galactic Supernova Remnants*,  
The Cherenkov Telescope Array Consortium, F. Acero et al. (322th out of 358 authors),  
Astroparticle Physics, 150, 102850 (28pp) (2023), Elsevier.  
Citation counts from ADS 7
9. *Study of maximum electron energy of sub-PeV pulsar wind nebulae by multiwavelength modelling*,  
J. C. Joshi, **S. J. Tanaka**, L. S. Miranda & S. Razzaque, Monthly Notices of the Royal Astronomical Society, 520, 5858-5869 (2023), Oxford University Press.

Citation counts from ADS 8

10. *Synchrotron Self-Compton Emission in the Two-Component Jet Model for Gamma-Ray Bursts*, Y. Sato, K. Obayashi, B. T. Zhang, **S. J. Tanaka**, K. Murase, Y. Ohira, & R. Yamazaki, *Journal of High Energy Astrophysics*, 37, p. 51-61 (2022), Elsevier.  
Citation counts from ADS 8
11. *Mass-resolved ion measurement by particle counting analysis for characterizing relativistic ion beams driven by lasers*, T. Minami, A. O. Tokiyasu, H. Kohri, Y. Abe, K. Iwasaki, T. Taguchi, K. Oda, S. Suzuki, T. Asai, **S. J. Tanaka**, S. Isayama, M. Kanasaki, S. Kodaira, Y. Fukuda, & Y. Kuramitsu, *Review of Scientific Instruments*, 93, 113530 (5pp) (2022), AIP Publishing.  
Citation counts from ADS 2
12. *Detection of current-sheet and bipolar ion flows in a self-generated anti-parallel magnetic-field of laser-produced plasmas for magnetic reconnection research*, T. Morita, T. Kojima, S. Matsuo, S. Matsukiyo, S. Isayama, R. Yamazaki, **S. J. Tanaka**, K. Aihara, Y. Sato, J. Shiota, Y. Pan, K. Tomita, T. Takezaki, Y. Kuramitsu, K. Sakai, S. Egashira, H. Ishihara, O. Kuramoto, Y. Matsumoto, K. Maeda, & Y. Sakawa, *Physical Review E*, 106, 055207 (10pp) (2022), American Physical Society.  
Citation counts from ADS 2
13. *High-power laser experiment on developing supercritical shock propagating in homogeneously magnetized plasma of ambient gas origin*, S. Matsukiyo, R. Yamazaki, T. Morita, K. Tomita, Y. Kuramitsu, T. Sano, **S. J. Tanaka**, T. Takezaki, S. Isayama, T. Higuchi, H. Murakami, Y. Horie, N. Katsuki, R. Hatsuyama, M. Edamoto, H. Nishioka, M. Takagi, T. Kojima, S. Tomita, N. Ishizaka, S. Kakuchi, S. Sei, K. Sugiyama, K. Aihara, S. Kambayashi, M. Ota, S. Egashira, T. Izumi, T. Minami, Y. Nakagawa, K. Sakai, M. Iwamoto, N. Ozaki, & Y. Sakawa, *Physical Review E*, 106, 025205 (7pp) (2022), American Physical Society.  
Citation counts from ADS 4
14. *Spectral Break of Energetic Pulsar Wind Nebulae Detected with Wideband X-ray Observations*, A. Bamba, S. Shibata, **S. J. Tanaka**, K. Mori, H. Uchida, Y. Terada, & W. Ishizaki, *Publications of the Astronomical Society of Japan*, 74, 1186-1197 (2022), Oxford University Press.  
Citation counts from ADS 4
15. *Direct observations of pure electron outflow in magnetic reconnection*, K. Sakai, T. Moritaka, T. Morita, K. Tomita, T. Minami, T. Nishimoto, S. Egashira, M. Ota, Y. Sakawa, N. Ozaki, R. Kodama, T. Kojima, T. Takezaki, R. Yamazaki, **S. J. Tanaka**, K. Aihara, M. Koenig, B. Albertazzi, P. Mabey, N. Woolsey, S. Matsukiyo, H. Takabe, M. Hoshino, & Y. Kuramitsu, *Scientific Reports*, 12, 10921 (8pp) (2022), Nature Research.  
Citation counts from ADS 5
16. *X-ray Line Diagnostics of Ion Temperature at Cosmic-Ray Accelerating Collisionless Shocks*, J. Shimoda, Y. Ohira, A. Bamba, Y. Terada, R. Yamazaki, T. Inoue, & **S. J. Tanaka**, *Publications of the Astronomical Society of Japan*, 74, 1022-1040 (2022), Oxford University Press.  
Citation counts from ADS 5
17. *High-power laser experiment forming a supercritical collisionless shock in a magnetized uniform plasma at rest*, R. Yamazaki, S. Matsukiyo, T. Morita, **S. J. Tanaka**, T. Umeda, K. Aihara, M. Edamoto, S. Egashira, R. Hatsuyama, T. Higuchi, T. Hihara, Y. Horie, M. Hoshino, A. Ishii, N. Ishizaka, Y. Itadani, T. Izumi, S. Kambayashi, S. Kakuchi, N. Katsuki, R. Kawamura, Y. Kawamura, S. Kisaka, T. Kojima, A. Konuma, R. Kumar, T. Minami, I. Miyata, T. Moritaka, Y. Murakami, K. Nagashima, Y. Nakagawa, T. Nishimoto, Y. Nishioka, Y. Ohira, N. Ohnishi, M. Ota, N. Ozaki,

T. Sano, K. Sakai, S. Sei, J. Shiota, Y. Shoji, K. Sugiyama, D. Suzuki, M. Takagi, H. Toda, S. Tomita, S. Tomiya, H. Yoneda, T. Takezaki, K. Tomita, Y. Kuramitsu, & Y. Sakawa, *Physical Review E*, 105, 025203 (13pp) (2022), American Physical Society.  
Citation counts from ADS 9

18. *A Comprehensive Study of the Spectral Variation and the Brightness Profile of Young Pulsar Wind Nebulae*,  
C.-P. Hu, W. Ishizaki, C.-Y. Ng, **S. J. Tanaka** & Y.-L. Mong,  
*The Astrophysical Journal*, 927, 87 (11pp) (2022), IOP Publishing.  
Citation counts from ADS 5
19. *Enhanced x-ray emission coinciding with giant radio pulses from the Crab Pulsar*,  
T. Enoto, T. Terasawa, S. Kisaka, C.-P. Hu, S. Guillot, N. Lewandowska, C. Malacaria, P. S. Ray, W. C. G. Ho, A. K. Harding, T. Okajima, Z. Arzoumanian, K. C. Gendreau, Z. Wadiasingh, C. B. Markwardt, Y. Soong, S. Kenyon, S. Bogdanov, W. A. Majid, T. Güver, G. K. Jaisawal, R. Foster, Y. Murata, H. Takeuchi, K. Takefuji, M. Sekido, Y. Yonekura, H. Misawa, F. Tsuchiya, T. Aoki, M. Tokumaru, M. Honma, O. Kameya, T. Oyama, K. Asano, S. Shibata, & **S. J. Tanaka**,  
*Science*, 372, 187-190 (2021), American Association for the Advancement of Science.  
Citation counts from ADS 13
20. *Probing the star formation origin of gamma rays from 3FHL J1907.0+0713*,  
T. Ergin, L. Saha, P. Bhattacharjee, H. Sano, **S. J. Tanaka**, P. Majumdar, R. Yamazaki, & Y. Fukui,  
*Monthly Notices of the Royal Astronomical Society*, 501, 4226-4237 (2021), Oxford University Press.  
Citation counts from ADS 2
21. *Toward experimental observations of induced Compton scattering by high-power laser facilities*,  
**Shuta J. Tanaka**, Ryo Yamazaki, Yasuhiro Kuramitsu & Youichi Sakawa,  
*Progress of Theoretical and Experimental Physics*, 2020, 063J01 (8pp) (2020), Oxford University Press.  
Citation counts from ADS 0
22. *Efficient acceleration of cylindrical jets: effects of radiative cooling and tangled magnetic field*,  
**Shuta J. Tanaka** & Kenji Toma,  
*Monthly Notices of the Royal Astronomical Society*, 494, 338-348 (2020), Oxford University Press.  
Citation counts from ADS 4
23. *Local plasma parameter measurements in colliding laser-produced plasmas for studying magnetic reconnection*,  
T. Morita, K. Tomita, K. Sakai, M. Takagi, K. Aihara, M. Edamoto, S. Egashira, T. Higuchi, N. Ishizaka, T. Izumi, S. Kakuchi, T. Kojima, Y. Kuramitsu, S. Matsukiyo, Y. Nakagawa, T. Minami, H. Murakami, Y. Nishioka, M. Ota, T. Sano, S. Sei, K. Sugiyama, **S. J. Tanaka**, R. Yamazaki, & Y. Sakawa,  
*High Energy Density Physics*, 36, 100754 (4pp) (2020), Elsevier.  
Citation counts from ADS 2
24. *Suzaku and Fermi view of the supernova remnant 3C 396*,  
A. Sezer, T. Ergin, N. Cesur, **S. J. Tanaka**, S. Kisaka, Y. Ohira, & R. Yamazaki,  
*Monthly Notices of the Royal Astronomical Society*, 492, 1481-1491 (2020), Oxford University Press.  
Citation counts from ADS 3
25. *Anomalous plasma acceleration in colliding high-power laser-produced plasmas*,  
T. Morita, K. Nagashima, M. Edamoto, K. Tomita, T. Sano, Y. Itadani, R. Kumar, M. Ota, S. Egashira, R. Yamazaki, **S. J. Tanaka**, S. Tomita, S. Tomiya, H. Toda, I. Miyata, S. Kakuchi, S. Sei, N. Ishizaka, S. Matsukiyo, Y. Kuramitsu, Y. Ohira, M. Hoshino, & Y. Sakawa,  
*Physics of Plasmas*, 26, 090702 (6pp) (2019), AIP Publishing.

Citation counts from ADS 7

26. *Full particle-in-cell simulation of the interaction between two plasmas for laboratory experiments on the generation of magnetized collisionless shocks with high-power lasers*, T. Umeda, R. Yamazaki, Y. Ohira, N. Ishizaka, S. Kakuchi, Y. Kuramitsu, S. Matsukiyo, I. Miyata, T. Morita, Y. Sakawa, T. Sano, S. Sei, **S. J. Tanaka**, H. Toda, & S. Tomita, *Physics of Plasmas*, 26, 032303 (8pp) (2019), AIP Publishing.  
Citation counts from ADS 7
27. *Confinement of the Crab Nebula with tangled magnetic field by its supernova remnant*, **Shuta J. Tanaka**, Kenji Toma, & Nozomu Tominaga, *Monthly Notices of the Royal Astronomical Society*, 478, 4622-4633 (2018), Oxford University Press.  
Citation counts from ADS 5
28. *Blocking Metal Accretion onto Population III Stars by Stellar Wind*, **Shuta J. Tanaka**, Gen Chiaki, Nozomu Tominaga, & Hajime Susa, *The Astrophysical Journal*, 844, 137 (11pp) (2017), IOP Publishing.  
Citation counts from ADS 25
29. *On the Radio-emitting Particles of the Crab Nebula: Stochastic Acceleration Model*, **Shuta J. Tanaka**, & Katsuaki Asano, *The Astrophysical Journal*, 841, 78 (11pp) (2017), IOP Publishing.  
Citation counts from ADS 23
30. *Prospects for Cherenkov Telescope Array Observations of the Young Supernova Remnant RX J1713.7 – 3946*, F. Acero et al. (317th out of 382 authors), *The Astrophysical Journal*, 840, 74 (14pp) (2017), IOP Publishing.  
Citation counts from ADS 20
31. *Broadband Photon Spectrum and its Radial Profile of Pulsar Wind Nebulae*, Wataru Ishizaki, **Shuta J. Tanaka**, Katsuaki Asano, & Toshio Terasawa, *The Astrophysical Journal*, 838, 142 (14pp) (2017), IOP Publishing.  
Citation counts from ADS 12
32. *Efficiency of Synchrotron Radiation from Rotation-Powered Pulsars*, Shota Kisaka, & **Shuta J. Tanaka**, *The Astrophysical Journal*, 837, 76 (16pp) (2017), IOP Publishing.  
Citation counts from ADS 10
33. *Wide-band Spectra of Giant Radio Pulses from The Crab Pulsar*, R. Mikami, K. Asano, S. J. Tanaka, S. Kisaka, M. Sekido, K. Takefuji, H. Takeuchi, H. Misawa, F. Tsuchiya, H. Kita, Y. Yonekura, & T. Terasawa, *The Astrophysical Journal*, 832, 212 (25pp) (2016), IOP Publishing.  
Citation counts from ADS 14
34. *A Broadband Emission Model of Magnetar Wind Nebulae*, **Shuta J. Tanaka**, *The Astrophysical Journal*, 827, 135 (8pp) (2016), IOP Publishing.  
Citation counts from ADS 8
35. *Avalanche Photon Cooling by Induced Compton Scattering: Higher-Order Kompaneets Equation*, **Shuta J. Tanaka**, Katsuaki Asano, & Toshio Terasawa, *Progress of Theoretical and Experimental Physics*, 2015, 073E01 (14pp) (2015), Oxford University Press.  
Citation counts from ADS 4

36. *Synchrotron X-ray Emission from Old Pulsars*,  
Shota Kisaka, & **Shuta J. Tanaka**,  
Monthly Notices of the Royal Astronomical Society, 443, 2063-2076 (2014), Oxford University Press.  
Citation counts from ADS 3
37. *Constraint on Pulsar Wind Properties from Induced Compton Scattering off Radio Pulses*,  
**Shuta J. Tanaka**, & Fumio Takahara,  
Progress of Theoretical and Experimental Physics, 2013, 123E01 (24pp) (2013), Oxford University Press.  
Citation counts from ADS 10
38. *Properties of Young Pulsar Wind Nebulae: TeV Detectability and Their Pulsar Properties*,  
**Shuta J. Tanaka**, & Fumio Takahara,  
Monthly Notices of the Royal Astronomical Society, 429, 2945-2952 (2013), Oxford University Press.  
Citation counts from ADS 57
39. *Study of Four Young TeV Pulsar Wind Nebulae with a Spectral Evolution Model*,  
**Shuta J. Tanaka**, & Fumio Takahara,  
The Astrophysical Journal, 741, 40 (14pp) (2011), IOP Publishing.  
Citation counts from ADS 71
40. *A Model of the Spectral Evolution of Pulsar Wind Nebulae*,  
**Shuta J. Tanaka**, & Fumio Takahara,  
The Astrophysical Journal, 715, 1248-1257 (2010), IOP Publishing.  
Citation counts from ADS 107
41. *Molecular Clouds as a Probe of Cosmic-Ray Acceleration in a Supernova Remnant*,  
Yutaka Fujita, Yutaka Ohira, **Shuta J. Tanaka**, & Fumio Takahara,  
The Astrophysical Journal Letters, 707, L179-L183 (2009), IOP Publishing.  
Citation counts from ADS 87

### Conference Proceedings

1. *Acceleration of Relativistic Jets with Tangled Magnetic Field*  
**S. J. Tanaka**, and K. Toma  
Proceedings of Yokohama GRB 2019 Oct. 2019
2. *Acceleration of relativistic outflows with tangled magnetic field*  
**S. J. Tanaka**, and K. Toma  
(Refereed) Proceedings of High Energy Phenomena in Relativistic Outflows VII. Jul. 2019  
Proceedings of Science (HEPRO VII), 017 (2019)
3. *On the Radio-emitting Particles of the Crab Nebula: Stochastic Acceleration Model*  
**S. J. Tanaka**  
Proceedings of IAU Symposium 337, Manchester, United Kingdom, Sep. 2017
4. *Luminosity of synchrotron radiation from outer magnetosphere of pulsars*  
S. Kisaka, and **S. J. Tanaka**  
Proceedings of IAU Symposium 337, Manchester, United Kingdom, Sep. 2017  
Proceedings of the International Astronomical Union, 337, 259 (2018)
5. *Confinement of Pulsar Wind Nebulae by Their Supernova Remnants and Magnetic Dissipation*  
**S. J. Tanaka**,  
(Refereed) Proceedings of Physics of Neutron Stars 2017, IOP Publishing, Saint Petersburg, Russia, Jul. 2017  
Journal of Physics: Conference Series, 932, 012052 (2017)
6. *Luminosity of synchrotron radiation from pulsar magnetosphere*  
S. Kisaka, and **S. J. Tanaka**,

(Refereed) Proceedings of Physics of Neutron Stars 2017, IOP Publishing, Saint Petersburg, Russia, Jul. 2017

7. *Search for the time evolution of the synchrotron X-ray spectrum from youngest Galactic supernova remnant G1.9+0.3 using Suzaku*  
A. Sezer, R. Yamazaki, Y. Ohira, **S. J. Tanaka**, & S. Kisaka,  
(Refereed) Proceedings of Physics of Neutron Stars 2017, IOP Publishing, Saint Petersburg, Russia, Jul. 2017
8. *Blocking Metal Accretion onto Low-Mass Population III Stars by Stellar Wind*  
**S. J. Tanaka**, G. Chiaki, N. Tominaga, & H. Susa,  
(Refereed) Proceedings of Origin of Matter and Evolution of Galaxies, AIP Publishing, Daejeon, Korea, Jul. 2017  
AIP Conference Proceedings, 1947, 020001 (2018)
9. *Stellar wind prevents the ISM gas from accreting onto the PopIII stars*  
H. Susa, **S. J. Tanaka**, G. Chiaki, & N. Tominaga,  
Proceedings of Star Formation in Space and Time, Firenze, Italy, Jun. 2017
10. *X-ray Emission from Middle-Aged Gamma-Ray Pulsars*  
S. Kisaka, & **S. J. Tanaka**,  
Proceedings of 2014 Fermi Symposium, Nagoya, Japan, Oct. 2014
11. *Synchrotron Emission from Old Pulsars*  
**S. J. Tanaka**, & S. Kisaka,  
Proceedings of Suzaku-MAXI 2014, Ehime, Japan, Feb. 2014
12. *High Energy Emission from Spherically Symmetric Pulsar Wind Nebulae*  
**S. J. Tanaka**,  
Proceedings of Suzaku-MAXI 2014, Ehime, Japan, Feb. 2014
13. *Hard X-ray observations with Suzaku HXD at the time of giant radio pulses from the Crab pulsar*  
R. Mikami, T. Terasawa, S. Kisaka, K. Asano, **S. J. Tanaka**, et al.  
Proceedings of Suzaku-MAXI 2014, Ehime, Japan, Feb. 2014
14. *Broadband Emission Structure of Pulsar Wind Nebulae*  
**S. J. Tanaka**,  
Proceedings of 33rd International Cosmic Ray Conference, Rio de Janeiro, Brazil, Jul. 2013
15. *Model of Radio Emission from Spherically Symmetric Pulsar Wind Nebulae*  
**S. J. Tanaka**,  
Proceedings of IAU Symposium 291, Beijing, China, Aug. 2012  
Proceedings of the International Astronomical Union, 291, 511
16. *Model of Radio Emission from Spherically Symmetric Pulsar Wind Nebulae*  
**S. J. Tanaka**,  
Proceedings of Electromagnetic Radiation from Pulsars and Magnetars, Zielona Góra, Poland, Apr. 2012  
Astronomical Society of the Pacific Conference Series, 466, 175 (2012)
17. *A Model of the Spectral Evolution of Pulsar Wind Nebulae*  
**S. J. Tanaka**, & F. Takahara,  
Proceedings of the 2009 Fermi Symposium, Washington, D.C., 2–5, Nov. 2009  
Proceedings of the 2009 Fermi Symposium, eConf Proceedings C091122

## International Conferences

### □ 2024

1. *Induced Compton scattering in pulsar magnetospheres and up-to-date laser facilities* (Oral)  
S. J. Tanaka, Y. Kuramitsu, Y. Fukuda et al. (17 additional authors)  
Polish - Japanese Workshop on Extreme Field and Plasma around Pulsar Magnetosphere @  
University of Zielona Góra, Poland, 12, Mar. 2024
2. *Proof-of-principle experiment of induced Compton scattering: a laser-plasma interaction around  
extreme astrophysical objects* (Poster)  
S. J. Tanaka, Y. Kuramitsu, Y. Fukuda et al. (17 additional authors)  
Matter in Extreme Conditions for Magnetized Plasmas (MECMATPLA) @ Montgenèvre, France,  
3-10, Feb. 2024
3. *Formation of Magnetized Bow Shocks with High-Power Laser: Dependence of Their Shape  
on Magnetic Field Direction* (Oral)  
S. J. Tanaka, K. Tanaka, Y. Kuramitsu et al. (38 additional authors)  
International Workshop on New Developments in Laboratory Astrophysics @ Kyushu Univ.,  
Japan, 11, Jan. 2024

### □ 2023

4. *Proof-of-principle experiment of induced Compton scattering: a laser-plasma interaction around  
extreme astrophysical objects* (**Invited Talk**)  
S. J. Tanaka, Y. Kuramitsu, Y. Fukuda et al. (17 additional authors)  
The 7th Asia-Pacific Conference on Plasma Physics (AAPPS-DPP2023) @ Port Messe Nagoya,  
Japan, 15, Nov. 2023
5. *Induced Compton scattering experiment in ELI-NP 1 PW Laser* (Oral)  
S. J. Tanaka, Y. Kuramitsu, Y. Fukuda et al. (17 additional authors)  
Romanian-Japanese Bilateral Workshop on QED and Plasma Interactions in Petawatt Laser  
Experiments @ ELI-NP, Romania, 9, Oct. 2023
6. *Laboratory experiment of induced Compton scattering* (Oral)  
S. J. Tanaka, Y. Kuramitsu, Y. Fukuda et al. (17 additional authors)  
Pulsar mini workshop in Yamagata @ Yamagata University, Japan, 3, Oct. 2023
7. *Proof-of-principle experiment of induced Compton scattering: a laser-plasma interaction around  
extreme astrophysical objects* (Oral)  
S. J. Tanaka, Y. Kuramitsu, Y. Fukuda et al. (17 additional authors)  
The 79th Fujihara Seminar: Prospects for High Field Science (PHFS2023) @ Awaji Yumebu-  
tai International Conference Center, Japan, 13, Jul. 2023
8. *Experimental observation of induced Compton scattering in laser produced plasmas* (**Invited  
Talk**)  
S. J. Tanaka, Y. Kuramitsu, M. S. Habibi et al. (10 additional authors)  
The 31st annual International Laser Physics Workshop (LPHYS'23) @ Online, 5, Jul. 2023
9. *Study of a laser-plasma interaction around extreme astrophysical objects: Induced Compton  
scattering in laboratory* (**Invited Talk**)  
S. J. Tanaka,  
Japan - ELI Joint Workshop on Collaboration in High Power Laser Science and Technology  
@ Yokohama, Japan, 17, Apr. 2023

### □ 2022

10. *3D hydrodynamic simulations of the interaction between interstellar accretion flow and isotropic  
outflow* (Oral)  
S. J. Tanaka, & K. Tanaka,

COSPAR 2022 @ Online/Athens, Greece, 19, Jul. 2022

11. *Experimental observation of induced Compton scattering in laser produced plasmas* (Oral)  
S. J. Tanaka, Y. Kuramitsu, M. S. Habibi et al. (10 additional authors)  
High Energy Density Laboratory Astrophysics (HEDLA 2022) @ Lisbon, Portugal, 25, May, 2022
12. *3D hydrodynamic simulation of the interaction between interstellar accretion flow and stellar outflow* (Oral)  
S. J. Tanaka, & K. Tanaka,  
Black Hole Astrophysics with VLBI 2022 @ ICRR, 7–9, Feb. 2022

□ **2021**

13. *Induced Compton Scattering experiment with J-KAREN-P Laser* (**Invited Talk**)  
S. J. Tanaka, Y. Kuramitsu, Y. Fukuda, et al. (16 additional authors)  
The 5th Asia-Pacific Conference on Plasma Physics (AAPPS-DPP 2021) @ On-line, 28, Sep. 2021
14. *Experimental Observation of Induced Compton Scattered Radiation with J-KAREN-P Laser* (Oral)  
S. J. Tanaka, Y. Kuramitsu, Y. Fukuda, et al. (16 additional authors)  
International Conference on High Energy Density Science 2021 @ On-line, 19–21, Apr. 2021
15. *Laboratory Experiment of Induced Compton Scattering: Initial Results* (Oral)  
S. J. Tanaka, Y. Kuramitsu, Y. Fukuda, et al. (16 additional authors)  
YITP International Molecule-type Workshop Fast Radio Bursts: A Mystery Being Solved? @ Kyoto, Japan/On-line, 8–19, Feb. 2021
16. *TeV Pulsar Wind Nebulae in the CTA era* (**Invited Talk**)  
S. J. Tanaka  
43rd COSPAR Scientific Assembly 2021 @ Sydney, Australia/On-line, 28, Jan. – 4, Feb. 2021
17. *Spectral and Dynamical Constraints on Kinetic Power and Age of SS 433 Jet* (Poster)  
S. J. Tanaka & T. Hiramatsu  
Black Hole Astrophysics with VLBI: Multi-Wavelength and Multi-Messenger Era @ On-line, 18–20, Jan. 2021

□ **2020**

18. *Stochastic Acceleration Model of Very Young Pulsar Wind Nebula Associated with SN 1986J* (Oral)  
S. J. Tanaka  
Connecting high-energy astroparticle physics for origins of cosmic rays and future perspectives @ Kyoto/On-line, 7–10, Dec. 2020
19. *Induced Compton scattering in current high-power laser facilities* (Oral)  
S. J. Tanaka  
Workshop on Laboratory Astrophysics: Novel Development in Nonlinear Plasma Physics with Lasers @ Osaka/On-line, 2–3, Sep. 2020
20. *Induced Compton scattering in pulsar magnetospheres and up-to-date laser facilities* (**Invited Talk**)  
S. J. Tanaka  
Physics at the Cosmic Frontiers @ Toyama, Japan, 5, Mar. 2020 (conference canceled, posted on conference web page)
21. *Acceleration of Relativistic Jets with Tangled Magnetic Field* (Oral)  
S. J. Tanaka & K. Toma  
Active Galactic Nucleus Jets in the Event Horizon Telescope Era @ Sendai, Japan, 20, Jan.



2020

□ **2019**

22. *Acceleration of Relativistic Outflows with Tangled Magnetic Field* (Oral)  
S. J. Tanaka & K. Toma  
Yamada Conference LXXI: Gamma-ray Bursts in the Gravitational Wave Era 2019 @ Yokohama, Japan, 30, Oct. 2019
23. *Induced Compton scattering in pulsar magnetospheres and up-to-date laser facilities* (**Invited Talk**)  
S. J. Tanaka  
9th East-Asia School and Workshop on Laboratory, Space, and Astrophysics @ Nagoya, Japan, 30, Jul. 2019
24. *Acceleration of Relativistic Outflows with Tangled Magnetic Field* (Oral)  
S. J. Tanaka & K. Toma  
HEPRO VII @ Barcelona, Spain, 9, Jul. 2019
25. *Dynamics of Pulsar Wind Nebula with Magnetic Dissipation and Turbulence* (Poster)  
S. J. Tanaka, K. Toma & N. Tominaga  
Supernova Remnants II: An Odyssey in Space After Stellar Death @ Crete, Greece, 3–8, Jun. 2019
26. *Induced Compton scattering in pulsar magnetospheres and up-to-date laser facilities* (**Invited Talk**)  
S. J. Tanaka  
Matter in extreme conditions: from material science to planetary physics @ Montgenèvre, France, 19, Mar. 2019
27. *Sigma- and kappa- problems of the Crab Nebula* (**Invited Talk**)  
S. J. Tanaka  
Shock meeting @ Fukuoka, Japan, 4, Mar. 2019

□ **2018**

28. *The Crab Nebula with tangled magnetic field: its radio emission and confinement by its supernova remnant* (**Invited Talk**)  
S. J. Tanaka  
8th East-Asia School and Workshop on Laboratory, Space, and Astrophysics @ Daejeon, Korea, 2, Aug. 2018
29. *Toward Experimental Observations of Induced Compton Scattering* (Poster)  
S. J. Tanaka, R. Yamazaki, Y. Kuramitsu, & Y. Sakawa  
12th International Conference on High Energy Density Laboratory Astrophysics @ Okayama, Japan, 28, May – 1, Jun. 2018
30. *Properties of Relativistic Outflows with Turbulent Magnetic Field and Its Dissipation* (Oral)  
S. J. Tanaka, K. Toma & N. Tominaga  
Dawn of a new era for black hole jets in active galaxies @ Sendai, Japan, 26, Jan. 2018

□ **2017**

31. *On the Radio-emitting Particles of the Crab Nebula: Stochastic Acceleration Model* (Oral)  
S. J. Tanaka & K. Asano  
Pulsar Astrophysics: The Next Fifty Years (IAU Symposium 337) @ Jodrell Bank Observatory, United Kingdom, 7, Sep. 2017
32. *Confinement of Pulsar Wind Nebulae by Their Supernova Remnants and Magnetic Dissipation* (Oral)

S. J. Tanaka, K. Toma & N. Tominaga  
Physics of Neutron Stars 2017 @ Saint-Petersburg, Russia, 13, Jul. 2017

33. *Blocking metal accretion onto population III stars by stellar wind* (Oral)  
S. J. Tanaka, G. Chiaki, N. Tominaga & H. Susa  
International Symposium on Origin of Matter and Evolution of Galaxies (OMEG 2017) @ Daejeon, Korea, 27, Jun. 2017
  34. *Induced Compton Scattering off Anisotropic Radiation* (Poster)  
S. J. Tanaka  
Sixth International Conference on High Energy Density Physics (ICHED 2017) @ Wakayama, Japan, 5–9, Jun. 2017
- **2016**
35. *A Stochastic Acceleration Model of Pulsar Wind Nebulae* (Oral)  
S. J. Tanaka & K. Asano  
The extreme Universe viewed in very-high energy gamma rays 2016 @ Kashiwa, Japan, 16, Dec. 2016
  36. *Induced Compton Scattering off Anisotropic Radiation* (Oral)  
S. J. Tanaka  
East-Asia School & Workshop on Laboratory, Space and Astrophysical Plasmas @ Tsukuba, Japan, 15, Jul. 2016
  37. *A Stochastic Acceleration Model of Radio Emission from Pulsar Wind Nebulae* (Poster)  
S. J. Tanaka & K. Asano  
East-Asia School & Workshop on Laboratory, Space and Astrophysical Plasmas @ Tsukuba, Japan, 11–16, Jul. 2016
  38. *A Stochastic Acceleration Model of Radio Emission from Pulsar Wind Nebulae* (Poster)  
S. J. Tanaka & K. Asano  
Supernova Remnants: An Odyssey in Space After Stellar Death @ Crete, Greece, 6–11, Jun. 2016
- **2015**
39. *Broadband Emission of Magnetar Wind Nebulae* (Oral)  
S. J. Tanaka  
SNSNR 2015 @ ISAS/JAXA, Japan, 10, Nov. 2015
  40. *Broadband Emission of Magnetar Wind Nebulae* (Oral)  
S. J. Tanaka  
TeVPA 2015 @ Kashiwa, Japan, 29, Oct. 2015
  41. *Constraint on Pulsar Wind Properties from Induced Compton Scattering: Applications* (Oral)  
S. J. Tanaka  
HEAP 2015 @ KEK, Japan, 8, Oct. 2015
  42. *Spectral Deformation by Induced Compton Scattering* (Oral)  
S. J. Tanaka  
The 1st Conference on Laser Energetics -Laser Astrophysics- @ Yokohama, Japan, 23, Apr. 2015
- **2014**
43. *Broadband Emission from Wind Nebulae Powered by Magnetars* (Poster)  
S. J. Tanaka  
Fifth International Fermi Symposium @ Nagoya, Japan, 20–24, Oct. 2014

44. *Spectral Model of Wind Nebulae Powered by Magnetar* (Poster)  
S. J. Tanaka  
40th COSPAR Scientific Assembly 2014 @ Moscow, Russia, 2–10, Aug. 2014
45. *Constraint on Pulsar Wind Properties from Induced Compton Scattering off Radio Pulses* (Poster)  
S. J. Tanaka & F. Takahara  
Physics of Neutron Stars 2014 @ Saint-Petersburg, Russia, 28, Jul.–1, Aug. 2014
46. *Constraint on Pulsar Wind Properties from Induced Compton Scattering off Radio Pulses* (Oral)  
S. J. Tanaka & F. Takahara  
The Structure and Signals of Neutron Stars, from Birth to Death @ Florence, Italy, 28, Mar. 2014
47. *High Energy Emission from Spherical Pulsar Wind Nebulae* (Poster)  
S. J. Tanaka  
Suzaku-Maxi 2014 Expanding the Frontiers of the X-ray Universe @ Ehime University, Japan, 19–22, Feb. 2014
- **2013**
48. *Broadband Emission Model of Spherical Pulsar Wind Nebulae* (Oral)  
S. J. Tanaka  
X-raying the Gamma-ray Universe –CTA-X-ray rink meeting– @ Hakone, Kanagawa, Japan, 5, Nov. 2013
49. *Broadband Emission Structure of Pulsar Wind Nebulae* (Poster)  
S. J. Tanaka  
ICRC2013 @ Rio de Janeiro, Brazil, 2–9, Jul. 2013
50. *Spectral and Spatial Study of Pulsar Wind Nebulae (Invited Talk)*  
S. J. Tanaka  
International Winter School on the Interstellar Medium and High Energy Phenomena 2013 @ Ise-Shima, Mie, Japan, 6, Mar. 2013
51. *Constraint on Pulsar Wind Properties Using Induced Compton Scattering by Relativistically Moving Cold Plasma* (Poster)  
S. J. Tanaka & F. Takahara  
International Winter School on the Interstellar Medium and High Energy Phenomena 2013 @ Ise-Shima, Mie, Japan, 3–8, Mar. 2013
- **2012**
52. *Model of Radio Emission from Spherically Symmetric Pulsar Wind Nebulae* (Poster)  
S. J. Tanaka  
Neutron Stars and Pulsars: Challenges and Opportunities after 80 years IAU Symposium 291 (IAU General Assembly XXVIII) @ Beijing, China, 20–25, Aug. 2012
53. *Model of Radio Emission from Spherically Symmetric Pulsar Wind Nebulae* (Oral)  
S. J. Tanaka  
39th COSPAR Scientific Assembly @ Mysore, India, 16, Jul. 2012
54. *Model of Radio Emission from Spherically Symmetric Pulsar Wind Nebulae* (Oral)  
S. J. Tanaka  
Electromagnetic Radiation from Pulsars and Magnetars @ Zielona Góra, Poland, 26, Apr. 2012
- **2011**

55. *Gamma-ray Emission from Young Pulsar Wind Nebulae* (Oral)  
S. J. Tanaka & F. Takahara  
High Energy Astroparticle Physics 2011 @ Tsukuba, Japan, 14, Nov. 2011
56. *Study of Young Pulsar Wind Nebulae and Their Pulsars with a Spectral Evolution Model* (Oral)  
S. J. Tanaka & F. Takahara  
Physics of Neutron Stars 2011 @ Saint-Petersburg, Russia, 11, Jul. 2011
- **2010**
57. *Study of Young TeV Pulsar Wind Nebulae with a Spectral Evolution Model* (Oral)  
S. J. Tanaka & F. Takahara  
38th COSPAR Scientific Assembly 2010 @ Bremen, Germany, 23, Jul. 2010
58. *Study of Young TeV Pulsar Wind Nebulae with a Spectral Evolution Model* (Poster)  
S. J. Tanaka & F. Takahara  
International Winter School on the Interstellar Medium 2010 @ Ise-Shima, Mie, Japan, 22–26, Feb. 2010
59. *A Spectral Evolution of Young TeV Pulsar Wind Nebulae* (Poster)  
S. J. Tanaka & F. Takahara  
Exploring Supernova Remnants and Pulsar Wind Nebulae in X-rays: before and after ASTRO-H @ ISAS/JAXA, Japan, 18–19, Feb. 2010
- **2009**
60. *A Model of the Spectral Evolution of Pulsar Wind Nebulae* (Poster)  
S. J. Tanaka & F. Takahara  
International School Particle Acceleration in the Universe @ Nagoya Japan, 12–14, Nov. 2009
61. *A Model of the Spectral Evolution of Pulsar Wind Nebulae* (Poster)  
S. J. Tanaka & F. Takahara  
2009 Fermi Symposium @ Washington D.C. USA, 2–5, Nov. 2009