

# Takuya Inoue

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## Education

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National Taiwan University, Taiwan, Ph.D. in Physics	2020.9 – present
• Supervisor: Thesis supervisor: Wei-hao Wang (Research Fellow)	
• Ph.D. qualification exam in writing and oral form: Pass	
Doshisha University, Japan, M.S. in Engineering	2018.4 – 2020.3
• Thesis supervisor: Prof. Kyoji Inaoka	
Ecole Centrale de Lille, France, Double Master's degree program in Engineering	2016.9 – 2018.8
Doshisha University, Japan, B.S. in Mechanical Engineering	2014.4 – 2018.3

## Research Experience

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Ph.D. student, ASIAA – Taipei, Taiwan	2020.9 – present
• Supervisor: Teppei Okumura (Research Fellow)	
Research Internship, Max-Planck-Institute for Astrophysics – Munich, Germany	2018.5 – 2018.8
• Supervisor: Eiichiro Komatsu (Director)	
Research Project, Ecole Centrale de Lille – Lille, France	2018.2 – 2018.4
• Supervisor: Prof. Benjamin Katryniok	
Research Internship, Ecole Centrale de Lille – Lille, France	2017.1 – 2017.2
• Supervisor: Prof. Patrick Dupont	

## Honors and Awards

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MOST Regulations Governing Scholarship for Outstanding Doctoral Graduate Students (National Taiwan University scholarship award)	2020.9 – 2024.8
• Taiwanese government scholarship for 4 years	
• Provided a monthly stipend of TWD 40,000	
Japan Public-Private Partnership Student Study Abroad Program-TOBITATE! Young Ambassador (members from MEXT, JASSO, private sectors and universities)	2016.9 – 2018.8
• Japanese government scholarship for 2 years	
• Provided a monthly stipend of JPY 10,0000	
Selected student sponsored by the Japan Aerospace Exploration Agency (JAXA), International Space Education Board (ISEB) Program, Washington, D.C., USA	2019.10
• Provided travel expenses including flight tickets and accommodation	
• Outreach activities (Visit to a local school in USA)	

## Teaching Experience

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Teaching Assistant	2019.4 – 2019.8
Thermodynamics Class, Department of Mechanical Engineering, Doshisha University, Japan	

## Skills

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Programming: C, Python, Mathematica  
Languages: Japanese (Native), English (Upper Intermediate), French (Intermediate), Chinese (Beginner)

## Research Presentations

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### Conference

- [T. Inoue](#), T. Okumura, A. Taruya, and S. Saga, “Information content in anisotropic cosmological fields: Impact of different multipole expansion scheme for galaxy density and ellipticity correlations”, 2024 Autumn Annual Meeting of Astronomical Society of Japan, Kwansai Gakuin University, Japan (September, 2024)

### International Conferences

- [T. Inoue](#), “The Space Education in the International Space Education Board program”, The 3rd International Moon Village Symposium and Outreach Event in Kyoto, ‘Space Education and Outreach Activities’, Masukawa Building for Education and Research, Yoshida North Campus, Kyoto University, Japan (December, 2019)
- [T. Inoue](#), E. Komatsu, W. Aoki, T. Chiba, T. Misawa and T. Usuda, “The effect of our local motion on the Sandage-Loeb test of the cosmic expansion”, International Space Education Board program (ISEB), Washington, D.C., USA (October, 2019)

### Domestic Symposia

- [T. Inoue](#), T. Okumura, A. Taruya, and S. Saga, “The effect of the different basis on the intrinsic alignment statistics”, the 12th Workshop on Observational Cosmology, Saga University, Japan (December, 2023)
- [T. Inoue](#), E. Komatsu, W. Aoki, T. Chiba, T. Misawa and T. Usuda, “The effect of our local motion on the Sandage-Loeb test of the cosmic expansion”, Quantum Electronics workshop - Cosmic quantum electronics, The University of Tokyo, Japan (November, 2019)
- [T. Inoue](#), “Numerical analysis of transition mechanism and stability of Marangoni convection in a small liquid bridge”, Physics workshop, Osaka City University, Japan (July, 2019)
- [T. Inoue](#), E. Komatsu, W. Aoki, T. Chiba, T. Misawa and T. Usuda, “The effect of our local motion on the Sandage-Loeb test of the cosmic expansion”, New Academic Area Symposium ‘Why does the Universe accelerate? - Exhaustive study and challenge for the future’, Yukawa Institute for Theoretical Physics, Kyoto University, Japan (March, 2019)

### Invited Seminar / Meeting Talks

- [T. Inoue](#), T. Okumura, A. Taruya, and S. Saga, “Information content in anisotropic cosmological fields: Impact of different multipole expansion scheme for galaxy density and ellipticity correlations”, Asia Pacific Center for Theoretical Physics, Korea (July, 2024)
- [T. Inoue](#), T. Okumura, A. Taruya, and S. Saga, “The effect of the different basis on the intrinsic alignment statistics”, YITP seminar, Yukawa Institute for Theoretical Physics, Kyoto University, Japan, (December, 2023)
- [T. Inoue](#), E. Komatsu, W. Aoki, T. Chiba, T. Misawa and T. Usuda, “The effect of our local motion on the Sandage-Loeb test of the cosmic expansion”, ASIAA, Taiwan, (February, 2020)

## Publication List

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### Journal Publications

- [T. Inoue](#), E. Komatsu, W. Aoki, T. Chiba, T. Misawa and T. Usuda, “The effect of our local motion on the Sandage-Loeb test of the cosmic expansion”, Publications of the Astronomical Society of Japan, Volume 72, Issue 1, January 2020. arXiv: 1911.01467
- S. Saga, T. Okumura, A. Taruya and [T. Inoue](#), “Relativistic distortions in galaxy density-ellipticity correlations: gravitational redshift and peculiar velocity effects”, Monthly Notices of the Royal Astronomical Society, Volume 518, Issue 4, February 2023. arXiv: 2207.03454
- [T. Inoue](#), T. Okumura, S. Saga, and A. Taruya, “Information content in anisotropic cosmological fields: Impact of different multipole expansion schemes for galaxy density and ellipticity correlations”, Submitted to Physical Review D, July 2024. arXiv: 2406.19669

## Referees Contact Information

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