

Koichiro Yasuda

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EDUCATION

- **PhD, Physics, UCLA** **2023.09 – Present**
Advisors: Prof. Alexander Kusenko & Prof. Graciela Gelmini
- **BSc. with honors, Physics, Osaka University** **2019.04 – 2023.03**
Advisors: Prof. Kin-ya Oda, Prof. Yoshiyuki Inoue, Prof. Ryosuke Sato & Prof. Tetsuya Onogi
- **Credited auditor, Physics, Osaka University Graduate School of Science** **2022.04 – 2023.03**
- **Certificate of completion, University of Vienna Doctoral School of Physics** **2021.08 – 2021.09**
- **Rokko Gakuin Junior and Senior High School** **2013.04 – 2019.03**

ACADEMIC APPOINTMENTS

- **Teaching Assistant, Physics, UCLA** **2023.09 – Present**

PUBLICATIONS

- [1] Daiju Nakayama, Kin-ya Oda, and Koichiro Yasuda. Seeing through the light cone: Visualizing electromagnetic fields in special relativity. 5 2025.
- [2] Daiju Nakayama, Kin-ya Oda, and Koichiro Yasuda. Covariant Electromagnetism in Past-Light-Cone Formalism. 8 2024.
- [3] Koichiro Yasuda, Nobuyuki Sakai, Yoshiyuki Inoue, and Alexander Kusenko. Neutrinos and Gamma Rays from Beta Decays in an Active Galactic Nucleus NGC 1068 Jet. *Phys. Rev. Lett.*, 134(15):151005, 2025.

TEACHING

- **Physics 17 (Instructor: Prof. B.C. Regan)** **2025.09 – Present**
Discussion on introductory quantum mechanics, and selected topics in atomic, solid-state, nuclear, and particle physics
- **Physics 1B (Instructor: Prof. Alexander Kusenko)** **2025.04 – 2025.07**
Discussion on fluid dynamics, waves, and electrostatics
- **Physics 128 (Instructor: Prof. Graciela Gelmini)** **2025.01 – 2025.03**
Discussion on the standard models of particle physics, cosmology, and astrophysics
- **Physics 1C (Instructor: Prof. Jay Hauser)** **2024.09 – 2024.12**
Discussion on electromagnetism and special relativity
- **Physics 1A (Instructor: Prof. Vladimir Vasiliev)** **2024.04 – 2024.06**
Discussion on Newtonian mechanics and dynamics
- **Physics 4AL (Instructor: Prof. Katsushi Arisaka)** **2024.01 – 2024.03**
Physics experiments tutor on mechanics and dynamics
- **Physics 4BL (Instructor: Prof. Katsushi Arisaka)** **2023.09 – 2023.12**
Physics experiments tutor on electromagnetism and waves

HONORS & AWARDS

- The Pauley Fellowship, UCLA College of Letters and Science 2023-2024 & 2026-2027
- JASSO(Japan Student Services Association) scholarship 2023-2026
- Graduation with Excellent Honour Award, Honors Program, Osaka University 2023
- Award for Excellence in Honours Program Research Presentation, Osaka University 2022
- Undergraduate Research Fund, Osaka University, Japan 2021
- Keyence scholarship, Keyence foundation 2020
- Undergraduate Research Fund, Osaka University, Japan 2019

PRESENTATIONS

INVITED TALKS

- Theoretical Physics Seminar, RIKEN iTHEMS, Japan 2025.09
Exciting Possibilities of Multi-Messenger Windows on Cosmic Accelerators
- Theoretical Physics Seminar, Tokyo Womens Christian University, Japan 2025.08
Listening to the Whispers of Neutrinos
- Particle Astrophysics and Cosmology Including Fundamental Interactions (PACIFIC) 2024, French Polynesia 2024.08
Neutrinos and gamma rays from beta decays in an active galactic nucleus NGC 1068 jet

CONFERENCE TALKS

- The 71st HEP/Nuclear Young Scientists Summer School, Japan 2025.08
Extracting the reactor neutrino flux below 1.8 MeV with the halo-independent method
- N3AS 2025 Summer School in Santa Cruz, USA 2025.07
The origin of high energy neutrinos from active galactic nuclei
- UCI SoCal Dark Matter Mini-Workshop, UC Irvine, USA 2025.02
Neutrinos and gamma rays from beta decays in an active galactic nucleus NGC 1068 jet
- The 70th HEP/Nuclear Young Scientists Summer School, Japan 2024.08
Neutrinos and gamma rays from beta decays in an active galactic nucleus NGC 1068 jet
- High Energy Physics, Science Conference, MEXT (Japan's Ministry of Education), Japan 2022.03
On the lepton pair content and 511 keV emissions of active galactic nuclei
- Physics Education, 77th JPS Annual Academic Meeting, Japan 2022.03
On visualization of electromagnetic field under special relativity using Unity game engine

OUTREACH

- Physics Seminar, Rokko Gakuin Junior High School, Japan 2025.09
Neutrino as a key to unravel the mysteries of the universe
- Graduate School Study Abroad Information Session, online, Japan 2025.07
The Real Research Life and Beyond for US Graduate Students
- The 22nd Physical Society of Japan Online Physics Lectures, Japan 2024.08
The Real Research Life and Beyond for UCLA Graduate Students
- Graduate School Study Abroad Information Session, Kyoto University, Japan 2024.07
The Real Research Life and Beyond for US Graduate Students