



Prabesh Bista

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🌐 <https://prabeshbista.github.io/>

Education

- 2021 – 2024  **M.Sc. Physics**
[National Central University](#), Zhongli, Taiwan
Thesis title: *Non-collinear optical parametric amplification as a light source for photoemission spectroscopy*.
Advisor: [Dr. Cheng-Tien Chiang](#)
- Constructed a non-collinear optical parametric amplification from scratch.
 - Engaged in the investigation of the electronic structure of bulk NiTe₂ using ARPES.
- 2015 – 2019  **B.Sc. Physics**
[Tribhuvan University](#), Kathmandu, Nepal
Minor in *Mathematics*

Employment

- 08/2020 – 08/2021  **Research Assistant**
[Institute of Atomic and Molecular Sciences](#), Academia Sinica, Taiwan
- Generated second and third harmonic signals in nonlinear optical experiments.
 - Developed LabVIEW program for THORLABS PM 100D powermeter.
 - Procured laboratory components and assisted in lab setup.
- 03/2020 – 07/2020  **Internship**
Institute of Atomic and Molecular Sciences, Academia Sinica, Taiwan
Project: *Ambient photoemission spectroscopy and Kelvin-probe spectroscopy on the band gap and valence band of WS₂*.
- 05/2016 – 11/2019  **Physics Lab Assistant (full-time)**
[Sagarmatha Engineering College](#), Lalitpur, Nepal
- Trained and guided students in performing laboratory experiments.
 - Troubleshoot and maintained laboratory equipment to ensure optimal functionality.


Research Publications

Journal Articles



- 1 T.-I. Yang, Y.-W. Huang, **P. Bista**, C.-F. Ding, J. Chen, C.-T. Chiang, and H.-C. Chang,
“Photoluminescence of nitrogen-vacancy centers by ultraviolet one-and two-photon excitation of fluorescent nanodiamonds”, *The Journal of Physical Chemistry Letters* **13**, 11280–11287 (2022).

Presentation

Poster


- 09/2023  **Thematic summer school** on 2D Materials in Roscoff, France
Title: *Non-collinear optical parametric amplifier for photoemission spectroscopy*

Presentation (continued)




- 01/2023  Annual Meeting of the [Physical Society of Taiwan](#)
Title: *Development of an Infrared non-collinear optical parametric amplifier at sub-megahertz repetition rates*
- 11/2022  [IAMS Young Fellow](#) Research Presentation
Title: *Construction of an infrared by non-collinear optical parametric amplifier*

Mentorship






IAMS-IIP Internship

- 06 – 07/2023  [Marucheth Thongtheppairoj](#)
Undergrad student at Sirindhorn international institute of Technology (SIIT), Thailand








Honors and Awards

- 09/2021-08/2024  **TIGP Fellowship** awarded by [Academia Sinica](#), Taiwan, covering tuition fees and living expenses.
- 11/2018  **Outstanding Administrative Staff Award** presented by the Student Welfare Society of Sagarmatha Engineering College.
- 09/2018  **Travel Grant** provided by the [National Center for Physics](#), Pakistan to attend a workshop on Tracking Detector in High Energy Physics.

Skills

- | | |
|-------------|---|
| Language |  Nepali (mother tongue), English (fluent), Chinese (basic) |
| Programming |  Python, LabVIEW |
| Software |  Microsoft Office, \LaTeX , Origin, SOLIDWORKS, ImageJ |
| Optics |  Beam-width measurement, second & third harmonic generation, white light generation, parametric amplification, pulse-width measurement |
| Other |  Basic in handling angle-resolved photoemission spectroscopy (ARPES) |

Activities and Outreach

-  Attended the workshop on [Transport and Optics in Topological Systems](#) at the Institute of Physics, Academia Sinica, Taipei, Taiwan, on June 15 – 17, 2024.
-  Participated in the thematic school [Advanced Physics of van der Waals Hetero-Structures](#) in Roscoff, France, from September 23 to October 1, 2023.
-  Volunteered for [intercultural service](#) with a school in Taiwan through online engagement from September 5 to December 1, 2022.
-  Participated in the online [FOCUS PEEM](#) workshop organized by FOCUS GmbH on June 16 – 17, 2021.
-  Attended the Workshop on Space Weather and Upper Atmospheric Physics in Kathmandu, Nepal, from September 23 – 27, 2019.
-  Participated in the workshop on [Tracking Detector in High Energy Physics](#) in Islamabad, Pakistan, from October 15 – 19, 2018.
-  Organized the National Science Exhibition at Patan Multiple Campus, Lalitpur, Nepal, on February 18 – 19, 2018.

References

Dr. Cheng-Tien Chiang

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Dr. Raman Sankar

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Dr. Wibke Bronsch

Staff Scientist

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