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

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 WS_2 .

05/2016 - 11/2019

Physics Lab Assistant (full-time)

Sagarmatha Engineering College, Lalitpur, Nepal

- Trained and guided students in performing laboratory experiments.
- Troubleshot and maintained laboratory equipment to ensure optimal functionality.

Research Publications

Journal Articles



T.-I. Yang, Y.-W. Huang, P. Bista, et al., "Photoluminescence of nitrogen-vacancy centers by ultraviolet one-and two-photon excitation of fluorescent nanodiamonds," The Journal of Physical Chemistry Letters, vol. 13, no. 48, pp. 11 280-11 287, 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, pule-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

Assistant Research Fellow Institute of Atomic and Molecular Sciences Academia Sinica Taipei, Taiwan

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Dr. Wibke Bronsch

Staff Scientist T-ReX Laboratory Elettra Sincrotrone Trieste, Italy

Email: wibke.bronsch@elettra.eu

Dr. Raman Sankar

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