Vo Chau Duc Phuong

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Basic Information

Given name	:	Duc Phuong
Family name	:	Vo Chau
Date of Birth	:	24/09/2002
Nationality	:	Vietnamese
Birthplace	:	An Giang, Vietnam

Education

The Abdus Salam International Center for Theoretical Physics (ICTP) — Trieste, Italy
Diploma student, pre-PhD course — *Sep 2024 – Now*
Condensed matter and statistical physics

University of Science — Ho Chi Minh city, Vietnam
Honours B.Sc. degree in physics; ***GPA: 8.88/10.0*** — *Sep 2020 – July 2024*
Major in theoretical physics

Thoai Ngoc Hau highschool for the gifted — An Giang, Vietnam
Major in physics; ***GPA: 9.1/10.0*** — *Sep 2017 – July 2020*

Research Experience

Institute of Applied Mechanics and Informatics — Ho Chi Minh city, Vietnam
Internship — *Feb 2023 – July 2024*

- Worked on the "Calculation of Shift Tensor in Transition Metal Dichalcogenide" project under the supervision of Dr. Huynh Thanh Duc. Investigating the shift current induced by optical excitation in two-dimensional transition metal dichalcogenides. Results have been reported in the International Conference on Energy, Infrastructure and Environmental Research (EIER 2024).
- Worked on my bachelor thesis: "Calculation of The Linear-Absorption Spectrum of An Ideal Two-dimensional System of MoS_2". The findings were presented to the Department of Theoretical Physics at the University of Science in Ho Chi Minh City, Vietnam, receiving a grade of **9.4/10.**

Publication

Phuong, V. C. D., & Huynh, T. D. (2024). Calculation of shift current tensors in two-dimensional transition metal dichalcogenides. E3S Web of Conferences, 496, 02002–02002. https://doi.org/10.1051/e3sconf/202449602002

Other Academic Works

Bachelor's thesis

Calculation of The Linear-Absorption Spectrum of An Ideal Two-dimensional System of MoS_2

Thesis: GitHub

Abstract: Using Semiconductor Bloch Equations, the Coulomb interaction has been taken into account using the Hatree-Fock approximation. This work confirms that the exciton binding energy in MoS_2 is in agreement with experiments using a model with a minimum number of energy bands.

Awards & Achievements

Top $1^{st.}$ in Physics majors (both in general and honour program) at the University of Science, National University of Ho Chi Minh city: Achieved the top $1^{st.}$ rank in the physics class, selected for the honours program in the first year due to outstanding performance in high school. (admission class 2020-2024)

Scholarship For Top Student In The Honours Class: Received an award for being the top student in the honours class each semester. (2020-2023)

2^{nd} Prize in the "National Physics Olympics for College Students": (2022)

Golden Medals in "Traditional 30/04 Olympiad": (Awarded golden medals in both 2018 & 2019)

Odon-Vallet Scholarship: (2018)

References

Natasa Stojic

Long-term visitor scientist
LB-301, The Abdus Salam International Center for Theoretical Physics
@ nstojic@ictp.it
Prof. Natasa Stojic is my lecturer in my diploma program at ICTP.

Huynh Thanh Duc

Researcher
Institute of Applied Mechanics and Infomatics, Vietnam Academy of Science and Technology, Vietnam
@ htduc@hcmip.vast.vn
Dr. Huynh Thanh Duc is my supervisor for my works at HCMC INSTITUTE OF PHYSICS and also is my thesis's supervisor (2022-2024).

Coding Skills

Beginner: JULIA, MATHEMATICA

Intermediate: FORTRAN, PYTHON, MATLAB, Bash

Language Skills

Vietnamese: Native

English: Reading and listening: fluently, writing and speaking: good

German: Beginner

Latin: Beginner

Organizations and Volunteer Experience

Organizations

Math and Science Summer Program — *July 2023 & July 2024*
Headmentor (2024) — *Phenikaa University, Hanoi, Vietnam*
Mentor (2023) — *University of Education, Hanoi, Vietnam*

Newton-Einstein-Schrödinger NES academic club — *2020-2024*
Member

Physics student Union — *2020-2021*
President — *Ho Chi Minh University of Science*

Volunteer

ICTP 60^{th} Anniversary — *Trieste, Italy*
Member — *November 2024*

Volunteer Spring — *Ho Chi Minh city, Vietnam*
Member — *2022 & 2023*

Green Summer Campaign — *University of Science, Ho Chi Minh city, Vietnam*
Member — *2022 & 2023*

Charity Meal — *Ho Chi Minh city, Vietnam*
Member — *2021 & 2023*