



Ph.D. Thuong Duc HOANG

<https://hoangducthuong.github.io/>

PERSONAL DETAILS

<i>Degree</i>	Ph.D in physics of the Universe at Paris University
<i>Birth</i>	April 12, 1989
<i>Nationality</i>	Vietnam
<i>Phone</i>	(+84) 396158683
<i>Address</i>	Department of Space and Applications, University of Science and Technology of Hanoi (USTH), 18 Hoang Quoc Viet, Hanoi, Vietnam.

EDUCATION & EXPERIENCE

Lecturer/researcher

2021-now

Department of Space and Applications - University of Science and Technology of Hanoi (USTH)-Vietnam

Teaching modules:

- Basic programming (C)
- Data Analysis & Visualization (python)
- Modern cosmology
- Practical work: Advanced electronic system

Postdoctoral scholar

2019-2020

Cornell University - United States

Testbed focal plane detectors for the Simons Observatory and optimization survey strategies for ground-based Cosmic Microwave Background (CMB) experiments at the Atacama desert in Chile. Supervisor: Prof. Michael Niemack

Ph.D. in AstroParticle and Cosmology (APC) laboratory

2015-2018

Paris Diderot University-France

- Title: Optimization of future projects for the measurement of Cosmic Microwave Background polarization. (Bandpass filters mismatch systematic effect for LiteBird satellite & Interaction of particles with 256 superconducting Transition Edge Sensors array of QUBIC ground-based experiment). Supervisors: Assoc. Prof. Guillaume Patanchon & Dr. Damien Prele. [[dissertation](#)]
- 21-22 December 2017 Paris-France, my initiative: 1st Meeting of Young Vietnamese Community of Astronomy (YVCA), APC laboratory, Paris Diderot University. Program: <https://space.usth.edu.vn/en/news/news-events/yvca-program-127.html>

Master Space Science & Applications

2012-2014

Double-Diploma: Observatoire de Paris and University of Science and Technology of Hanoi (USTH).

- 3/2014 - 9/2014: Master thesis: Cosmic ray interaction with Planck satellite detectors for the measurement of the Cosmic Microwave Background (CMB) radiation polarization with Dr. Guillaume Patanchon at the APC laboratory.
- 4th - 10th 8/2013: Participation to the Rencontres du Viet Nam-Vietnam School of Physics on Astrophysics and Cosmology.
- 6/2013 - 9/2013: (M1 thesis) Design the Software Monitoring the Operation Sequence and State of Satellite VNREDSat-1 (Vietnam Natural Resources, Environment and Disaster Monitoring Satellite) in the Space Technology Institute (STI)-Vietnam Academy of Science and Technology (VAST).

Electrical Engineering**2007-2012**

Hanoi University of Science and Technology (HUST), School of electrical engineering, department of instrumentation and industrial informatics. Diploma: Degree of Engineer in Control and Automation Engineering.

- 2011 - 2012: Lab work: ABB - HUST training center (teamleader). ABB is a global group in power and automation technologies.

High School: Hai Phong-Vietnam**2004-2007**

The top pupil in math, physic and chemistry.

LANGUAGE

- English: Fluent
- French: Intermediate

SKILLS [SIMULATION, INSTRUMENTATION & DATA ANALYSIS]

- Simulation of physical processes/ Data analysis.
- Electronic and mechanical experiences.
- Python (Advanced), C/C++ (intermediate), Bash shell (Basic).
- TOAST (Time Ordered Astrophysics Scalable Tools) (intermediate)
- Matlab (Intermediate).
- OrCAD/Altium Designer (Intermediate), Labview (Basics).
- Layout Editor / Klayout (Basic).
- Root (Basic).
- Solidwork (Advanced), Catia v5/ v6 (Intermediate), ANSYS (Basic), AutoCAD (Intermediate).
- Latex (Advanced).
- Window/Linux/Mac OS (Advanced), Microsoft Office/Open Office/Keynote (Advanced).
- Adobe Photoshop/Lightroom/Premiere (Intermediate).
- WordPress/HTML/CSS (Intermediate).

- Photography (Intermediate), calligraphy (Basic), guitar player (Intermediate).
- Ping-pong/badminton (Intermediate).
- Astronomy facebook fanpage (≈ 12000 likers): <https://www.facebook.com/thienvanhoc.org/>
- Google Scholar: https://scholar.google.com/citations?user=X6_u9x0AAAAJ&hl=en