Thuong D. HOANG, Ph.D.

https://hoangducthuong.github.io/

PERSONAL DETAILS

Degree	Ph.D. in Physics of the Universe at Paris University
Birth	April 12, 1989
Nationality	Vietnam
Email	hoang416@umn.edu
Address	School of Physics and Astronomy, University of Minnesota, Physics and Nanotechnology Building, 115 Union St SE, Minneapolis, MN 55455, USA.

EDUCATION & EXPERIENCE

Researcher 2023-present

School of Physics and Astronomy, University of Minnesota (UMN), USA.

- BICEP/Keck experiments, with Prof. Clement Pryke.
  (BICEP/Keck are the state-of-the-art Cosmic Microwave Background polarimeters located at the South Pole in Antarctica. The collaboration consists of UMN, Harvard, Caltech, and Standford.)

Postdoctoral researcher 2021-2023

Kavli Institute for the Physics and Mathematics of the Universe (Kavli IPMU), The University of Tokyo, Japan.

- Develop, characterize, and test the Polarization Modulator Unit (PMU) of the LiteBIRD Low-Frequency Telescope (LFT). Advisor: Prof. Tomotake Matsumura.
  (LiteBIRD: The Lite (Light) satellite for the study of B-mode polarization and Inflation from cosmic background Radiation Detection. LiteBIRD collaboration consists of JAXA, NASA, ESA, CSA.)

Researcher/Lecturer 2020-2021

Vietnam-France University (University of Science and Technology of Hanoi (USTH)), Vietnam.

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

Postdoctoral researcher 2019-2020

Department of Physics, Cornell University, USA

- Testbed focal plane superconducting detectors for the Simons Observatory (SO). Advisor: Prof. Michael Niemack
  (SO is a ground-based Cosmic Microwave Background experiment located in the Atacama Desert, Chile. SO collaboration formed between the Simons Foundation, the founding universities (University of Pennsylvania, Princeton University, the University of California, San Diego, the University of California, Berkeley, and the Lawrence Berkeley National Laboratory), and collaborating institutions across the globe.)

Ph.D. in AstroParticle and Cosmology (APC) laboratory 2015-2018

Paris 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: Prof. Guillaume Patanchon. [dissertation]*

- 21-22 December 2017 Paris-France, my initiative: 1st Meeting of Young Vietnamese Community of Astronomy (YVCA), APC, Paris University.

Master in Space Science & Applications 2012-2014

Double-Diploma: Observatoire de Paris and Vietnam-France University (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 Prof. Guillaume Patanchon at the APC laboratory.

Electrical Engineering 2007-2012

Hanoi University of Science and Technology (HUST), School of Electrical Engineering.

- 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 1^{st} ranked student in Maths, Physics, and Chemistry.

LANGUAGE

- English: Fluent
- French: Intermediate
- Japanese: Beginner
- Vietnamese: Native

SKILLS [SIMULATION, INSTRUMENTATION & DATA ANALYSIS]

- Simulation of physical processes/ Data analysis.
- Cryogenic, Thermal, Optics, Electronic, and Mechanical (**CryoTherOptEleMec**) experiences.

- Python (Advanced), C/C++ (intermediate), Bash shell (Basic), Matlab (Intermediate), Labview (intermediate).
- TOAST (Time Ordered Astrophysics Scalable Tools) (intermediate), Root (Basic).
- Solidwork (Advanced), Catia v5/ v6 (Intermediate), AutoCAD (Intermediate).
- ANSYS (intermediate), RCWA (basic), OrCAD/Altium Designer (Intermediate), Layout Editor / Klayout (Basic).

- Window/Linux/Mac OS (Advanced), Microsoft Office/Open Office/Keynote (Advanced).

- Latex (Advanced).
- Adobe Photoshop/Lightroom/Premiere (Intermediate).
- WordPress/HTML/CSS (Intermediate).

- Google Scholar: https://scholar.google.com/citations?hl=en&user=X6_u9x0AAAAJ&view_op=list_works&sortby=pubdate
- Photography (Intermediate), guitar player (Intermediate).
- Ping-pong/badminton (Intermediate).
- Astronomy Facebook fanpage ($\approx$ 12000 likers): https://www.facebook.com/thienvanhoc.org/