Tien Cuong Phi

Email address: cuong.tienphi@gmail.com

WORK EXPERIENCE

Postdoc researcher

Kyoto University [2023 – Current]

City: Kyoto | **Country:** Japan

University teaching/research assistant

University Côte d'Azur [2019 – 2022]

City: Nice | **Country:** France

Researcher

Institute of Mathematics Hanoi [2017 – 2020]

City: Hanoi | **Country:** Vietnam

EDUCATION AND TRAINING

Ph.D in Mathematics

University Côte d'Azur [2018 – 2022]

City: Nice | **Country:** France | **Field(s) of study:** Probability and Statistics ; Stochastic Modelling ; Computer Science ; Neuroscience | **Thesis:** Kalikow decomposition for counting processes with stochastic intensity

Advisors: Patricia Reynaud Bouret, Eva Löcherbach

Master of Science

University Côte d'Azur [2017 – 2018]

City: Nice | **Country:** France | **Field(s) of study:** Probability and Statistics ; Optimization ; Neuroscience | **Thesis:** Optimization algorithms for the reconstruction of functional connectivity

Advisor: Patricia Reynaud Bouret

Bachelor of Science

Hanoi National University of Education [2012 – 2016]

City: Hanoi | **Country:** Vietnam

PUBLICATIONS

[2025]

Integrated information theory reveals the potential role of the posterior parietal cortex in sustaining conditioning responses in classical conditioning tasks (peer-reviewed)

Authors: Phi, Tien Cuong and Ishii, Shin and Kondo, Masashi and Matsuzaki, Masanori and Nakae, Ken.

Frontiers in Neuroscience, 19, 1512724.

[2023]

Kalikow decomposition for counting processes with stochastic intensity and application to simulation algorithms (peer-reviewed)

Authors: Phi, Tien Cuong and Locherbach, Eva and Reynaud-Bouret, Patricia.

Journal of Applied Probability, 60(4), 1469-1500.

[2020]
Event-scheduling algorithms with Kalikow decomposition for simulating potentially infinite neuronal networks (peer-reviewed)
Authors: Phi, Tien Cuong and Muzy, Alexandre and Reynaud-Bouret, Patricia

SN Computer Science, 1(1), 35.

[2021]
Reconstruction de la connectivite fonctionnelle en Neurosciences: une amelioration des algorithmes actuels (peer-reviewed)
Authors: Scarella, Gilles and Mascart, Cyrille and Muzy, Alexandre and Phi, Tien Cuong and Reynaud-Bouret, Patricia

52èmes Journées de Statistique de la Société Française de Statistique (SFdS)

INVENTION DISCLOSURE

[2024]
Invention Disclosure of nm-bridge

I was the conceptor of the reconstruction algorithm, which is one block of the nm-bridge package.

https://neuromod.gitlabpages.inria.fr/nm-bridge/contributors/

PROJECTS

[2025 – Current]
Development of a data-driven whole brain model for identification of disease etiological mechanisms
Principal Investigator: Hiromichi Tsukada
Co Investigator: Ken Nakae

[2021 – 2022]
Siimulating a huge neural network using Kalikow decomposition

1. Improved Ogata's thinning algorithm to simulate multivariate point processes. Developed new algorithms using Kalikow decomposition.
2. Implemented several algorithms using Python.

Principle Investigator: Patricia Reynaub-Bouret

[2017 – 2018]
Reconstruction of functional connectivity in neuroscience
Developed new algorithms to find Lasso estimator for Hawkes models.
Principle Investigator: Patricia Reynaub-Bouret

CONFERENCES AND SEMINARS

[01/2025] Kyoto, Japan
Kyoto University Neuroscience Meeting
Poster presentation

[07/2024] Tokyo, Japan
ASSC27 Conference (Consciousness Conference)

[02/2022] Institut Henri Poincaré, Paris, France
Workshop "Mathematical modeling and statistical analysis in neuroscience", IHP, Paris
Speaker

[09/2021] Paris Scientific Centre of the Polish Academy of Sciences, Paris, France
Conference on Modeling Methods in Computer Systems, Networks and Bioinformatics
Speaker

[06/2021] Rennes, France
Journée des Probabilitées
Speaker

[10/2019] Paris Scientific Centre of the Polish Academy of Sciences, Paris, France
Conference on Modeling Methods in Computer Systems, Networks and Bioinformatics
Speaker

[07/2019] Saint Flour, France
École d'Été de Probabilité Saint Flour
Presented a talk

HONOURS AND AWARDS

University Côte d'Azur
Ph.D Scholarship (2018-2021)

University Côte d'Azur
Master Scholarship (2017-2018)

University Côte d'Azur
Neuroscience Grant (2017)

TEACHING EXPERIENCE

[2021 – 2022]
Teaching Assistant

I taught 3 courses:

Introduction to Probability and Statistics, Statistics 2 and Statistics 3 for B2 students.

[2019 – 2021]
Teaching Assistant

I taught a course named: Modelling Studies for Engineering Mathematical Master students

PROGRAMMING SKILLS

R

I obtained a Coursera's certificate

"**Advanced R Programming**" from Johns Hopkins University.

Python

I obtained 3 Coursera's certificates:

1. **Data Analysis using Python** from University of Pennsylvania
2. **Python Classes and Inheritance** from University of Michigan
3. **Data Collection and Processing with Python** from University of Michigan

LANGUAGE SKILLS

Mother tongue(s): Vietnamese

Other language(s):

English

LISTENING B2 **READING** B2 **WRITING** B1

SPOKEN PRODUCTION B1 **SPOKEN INTERACTION** B1

French

LISTENING B2 **READING** B2 **WRITING** B1

SPOKEN PRODUCTION B1 **SPOKEN INTERACTION** B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user