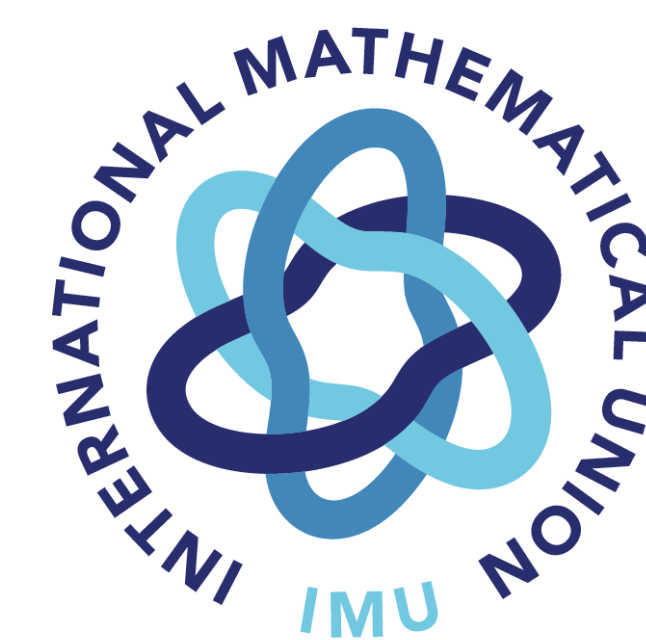


BREAKOUT GRADUATE FELLOWSHIP

Ph.D in Mathematics, Vietnam Academy of Sciences and Technology, Vietnam



Breakout Grantee: **Dr. Phan Thanh Hong**, Thang Long University, Hanoi, Vietnam

CONTEXT

In Vietnam, graduate students often need to teach at the university level during their doctoral studies due to limited research funding. Scholarships like the Breakout Graduate Fellowship Program eases the burden of juggling responsibilities, allowing students to focus on academic excellence and innovation. By reducing the need for teaching or part-time work, students can focus on their studies and contribute significantly to their fields. This promotes individual growth and also advances scientific knowledge, which can help nurture a new generation of scholars for emerging regions like Vietnam.

CDC SUPPORTED ACTIVITY

I received the Breakout Graduate Fellowship in 2019 to pursue my doctoral studies at the Institute of Mathematics in Vietnam Academy of Science and Technology. The scholarship provided me with financial support to cover my tuition fees and living expenses, allowing me to fully concentrate on my research. Through workshops and conferences I attended, I also had the opportunity to collaborate with and learn from leading experts in my field, which greatly enriched my academic experience. Having access to a network of esteemed academics and researchers was invaluable for my professional growth.

IMPACT

Thanks to this program, I had more time and confidence to complete my research program. This not only provided me with many opportunities for personal development but also served as a great encouragement for me to continue pursuing a career in mathematical research. The scholarship significantly impacted my studies by enabling me to focus solely on my research, which resulted in the publication of several papers. By removing the need to juggle multiple jobs, it allowed me to explore deeper into my academic interests.

The fellowship connected me with a wider mathematical community, including mentors, researchers, and young mathematicians from different countries. These interactions opened new perspectives for my research and created possibilities for future collaborations. Being part of this international community has inspired me to contribute more actively to academic exchanges and to help build stronger connections between researchers in Vietnam and the global mathematical community.

OUTCOMES AND ACHIEVEMENTS

- Completed three papers together with coauthors in the Journal of Dynamics and Differential Equations from 2019–2022
- Received funding from the program for outstanding PhD candidates by International Centre of Research and Postgraduate Training in Mathematics, Hanoi, Vietnam in 2021
- Engaged at Vietnam Institute for Advanced Studies in Mathematics as a young researcher from June to August, 2022
- Member of Organizing Committee and a speaker of the 7th International Conference on Random Dynamical Systems, Hanoi, Vietnam, 2022
- In 2023, I attended the Heidelberg Laureate Forum 10th and received postdoctoral fellowship from 2023–2025 at International Centre of Research and Postgraduate Training in Mathematics, Hanoi, Vietnam



REFLECTIONS

The fellowship strongly aligns with my long-term goal of pursuing an international research career in mathematics and contributing to the development of mathematical research in Vietnam. It provides not only financial support, but also confidence and motivation to continue working on challenging problems and to deepen my research activities.

During this period, I improved my research skills, developed stronger communication and collaboration skills through interactions with researchers from different backgrounds. The experience encouraged me to become more confident in discussing mathematics internationally.

This activity was supported by the International Mathematical Union Commission for Developing Countries and several winners of the Breakthrough Prize for Mathematics.