

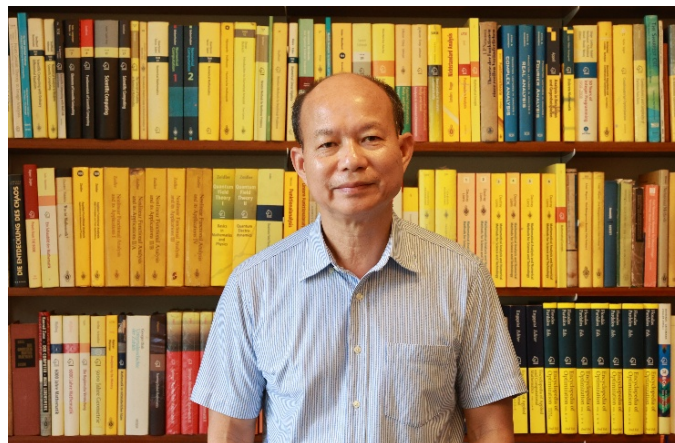
Professor Hoang Xuan Phu elected as a member of Academia Europaea

On May 5, 2026, the website of Academia Europaea (The Academy of Europe) added the page https://www.ae-info.org/ae/Member/Phu_Hoang_Xuan, introducing a newly elected member: Professor Dr. Sc. Hoang Xuan Phu, Senior Researcher at the Institute of Mathematics, Vietnam Academy of Science and Technology.

Previously, on April 2, 2026, Professor Donald B. Dingwell, President of Academia Europaea, sent an invitation to Professor Hoang Xuan Phu. He wrote: *“I would like to congratulate you on having been successful in the competitive membership election process of Academia Europaea.”*

According to Professor Dingwell, *“The Academia Europaea is the most prestigious Academy with individual membership from the Council of Europe states and from other nations across the world”* and *“plays a central role in the provision of science advice to the European Commission through SAPEA (Science Advice for Policy by European Academies) and on behalf of the European Commission at the G-20.”*

According to information from its website <https://www.ae-info.org/>, the Academia Europaea is the Pan-European Academy of Humanities, Letters and Sciences. Members of Academia Europaea are leading experts from the physical sciences and technology, biological sciences and medicine, mathematics, the letters and humanities, social and cognitive sciences, economics and the law. Many have been awarded prestigious prizes, such as 88 Nobel Prizes, 8 Abel Prizes, 20 Fields Medals, 7 Turing Awards, etc.



Professor Hoang Xuan Phu - Photo taken by Hoang Nam-Dũng

Besides Academia Europaea, Professor Hoang Xuan Phu has been elected as a member of five prestigious Academies: Heidelberg Academy of Sciences and Humanities (Heidelberger Akademie der Wissenschaften) (elected in 2004), Bavarian Academy of Sciences and Humanities (Bayerische Akademie der Wissenschaften) (elected in 2010), The World Academy of Sciences - for the

advancement of science in developing countries) (TWAS, elected in 2013), Acatech - National Academy of Science and Engineering, Germany (Deutsche Akademie der Technikwissenschaften), (elected in 2019), and European Academy of Sciences (elected in 2025).

Hoang Xuan Phu was born in 1956 in Nghe An, graduated in 1979, defended his doctoral thesis in 1983 and his Doctor of Science thesis in 1987 under the guidance and supervision of Associate Professor Günther Deweß, Professor Rolf Klötzler and Professor Eberhard Zeidler at the Institute of Mathematics, University of Leipzig, Germany.

From 1984 to the present, he has been a researcher at the Institute of Mathematics, Vietnam Academy of Science and Technology (IMVAST), becoming an Associate Professor in 1992 and a Full Professor in 1996.

Phu's main research areas are optimization, optimal control, scientific computing, and analysis. He invented the method of region analysis and the method of orienting curves to solve some classes of optimal control problems with state constraints and applied them to practical problems, such as developing rules and algorithms for controlling hydropower plants to optimize electric energy output, determining inventory levels to optimize storage costs, and controlling robotic arms along a given trajectory to optimize time, etc. He also invented the theory of rough analysis, aiming to better approach non-smooth objects and discontinuous processes, which often occur in nature and computational environments.

Since 1992, Professor Hoang Xuan Phu has been an annual guest of the Interdisciplinary Center for Scientific Computing (IWR), part of Heidelberg University, Germany, where he was elected the first Romberg Visiting Professor of the Heidelberg Graduate School of Mathematical and Computational Methods for the Sciences in 2008.

One of the outstanding collaborative results between IMVAST and IWR is the successful organization of seven International Conferences on High Performance Scientific Computing (HPSC) in Hanoi in 2000, 2003, 2006, 2009, 2012, 2015, and 2018, in cooperation with Ho Chi Minh City University of Technology, Vietnam Institute for Advanced Studies in Mathematics, and some other organizations. These conferences attracted many scientists from around the world, working in the field of scientific computing, with applications in mechanics, physics, chemistry, biology, medicine, economics, hydrology, meteorology, etc. Many world's leading scientists attended and presented invited lectures, contributing to making Hanoi an attractive meeting point for the international scientific community. Along with the main sponsorship from IWR, other sponsorships from Daimler and Benz Foundation, BBAW (Berlin-Brandenburg Academy of Sciences and Humanities), ICIAM (The International Council for Industrial and Applied Mathematics), etc. contributed to enabling many participants from Vietnam and from developing countries (including Laos, Cambodia, Thailand, Myanmar, India, etc.) to attend these conferences. Notably, the International Conference on HPSC in 2018 achieved two impressive records: Of the 305 people on the final list of participants (178 from abroad), 303 actually attended. Of the 210 planned presentations, all 210 were delivered as scheduled. This is the result of close collaboration

between Hoang Xuan Phu and his friends and colleagues Hans Georg Bock, Martin Grötschel, Karl-Heinz Hoffmann, Helge Holden, Willi Jäger, Rolf Jeltsch, Rolf Rannacher, Gisbert Frhr. zu Putlitz, *etc.* This is also the result of the meticulous and dedicated organization by an excellent team from Hanoi, Thai Nguyen, and Ho Chi Minh City, including Phan Thanh An (Secretary of the Organizing Committee), who was recently appointed as a Full Professor of Mathematics in 2025.

Alongside the 7 International Conferences on HPSC, Hoang Xuan Phu and his colleagues have successfully organized 24 Workshops on Optimization and Scientific Computing, held annually from 2003 to the present, including during the Covid-19 pandemic. These are national workshops, where the name "Optimization and Scientific Computing" is purely symbolic, as many scientists outside this field actively participate and contribute. Each year, many scientists, university lecturers, graduate students, and undergraduates meet, exchange research results, and share experiences. The 24th Workshop on Optimization and Scientific Computing was organized in Ba Vi in April 23-25, 2026, with 226 participants and 70 presentations.



24th Workshop on Optimization and Scientific Computing, Ba Vi, April 23-25, 2026 – Photo taken by Hoang Nam-Dũng

Currently, Hoang Xuan Phu is a member of the Editorial Board of seven international journals. Among them, he served as Editor-in-Chief of the Vietnam Journal of Mathematics (VJM, published by Springer Nature) from 2011 to 2022 and as Honorary Editor-in-Chief from 2023. Professors Hoang Xuan Phu and Le Tuan Hoa, along with their colleagues, have contributed to the extraordinary development of VJM. VJM's CiteScore has steadily increased, from 0.1 in 2013 (rank #303/309 and percentile 2th of general mathematics journals, excluding journals dedicated to specific disciplines or areas of mathematics) to 2.3 in 2024 (rank #96/414 and percentile 76th of

general mathematics journals). Thus, during the period 2013-2024, VJM's CiteScore increased by an average of 33% per year. From its position at the bottom of Q4 (fourth quadrant), VJM has risen to Q2 (second quadrant) in all three ranking categories of Web of Science, Scopus, and SCImago.

Professor Hoang Xuan Phu has always prioritized building and maintaining close cooperative relationships with the International Mathematical Union (IMU). He served as Asian Member of the Commission for Developing Countries (CDC) of the IMU from 2011 to 2014. He was elected to the IMU Circle in 2014, which was created by the IMU in order to acknowledge and honor the efforts of mathematicians who have served and represented the IMU, and given sustained and distinguished contributions to the IMU. Three consecutive IMU Presidents participated in and presented invited lectures at the International Conferences on HPSC in Hanoi while serving in those positions: John Ball (IMU President 2003-2006), László Lovász (IMU President 2007-2010, Abel Prize 2021), and Ingrid Daubechies (IMU President 2011-2014). Besides László Lovász, three other Presidents and three Secretaries-General of the IMU also serve on the Editorial Board of the VJM: Shigefumi Mori (IMU President 2015-2018, Fields Medal 1990), Carlos E. Kenig (IMU President 2019-2022), Hiraku Nakajima (IMU President 2023-2026), Martin Grötschel (IMU Secretary General 2007-2014), Helge Holden (IMU Secretary General 2015-2022), and Christoph Sorger (IMU Secretary General 2023-2026).



Ingrid Daubechies (IMU President 2011-2014), Martin Grötschel (IMU Secretary General 2007-2014) and Hoang Xuan Phu at the International Conference on HPSC in 2012
– Photo taken by Xuân Sơn

Commenting on Professor Hoang Xuan Phu's contributions to the Vietnam Journal of Mathematics, the Institute of Mathematics of the Vietnam Academy of Science and Technology, and the mathematical community, Professor Le Tuan Hoa said: *“The journal has achieved remarkable success over the past 15 years largely thanks to Professor Hoang Xuan Phu. It is impossible to list or analyze all of his accomplishments in a single interview. From arranging a cooperation agreement with the prestigious international publisher Springer in 2012, inviting an international editorial board with many world’s leading mathematicians (four members have won the Fields Medal, a member has won the Gauss Prize, and a member has won the Abel Prize), to organizing many special issues to attract articles from leading experts... Professor Hoang Xuan Phu's ability to achieve these accomplishments is thanks to his combination of factors: boundless love and responsibility for the journal, talent, high international prestige, and time (for over 15 years, he has dedicated almost all of his time to the journal). Not only as the Editor-in-Chief of VJM, but also in many other aspects, Professor Phu is a key member of our Institute of Mathematics. His international prestige is exceptionally high: He is a member of six prestigious Academies worldwide. In Vietnam, is there anyone who is a member of so many Academies? There aren't many scientists like that in the world. Phu's international prestige is not only a source of pride but also contributes to enhancing the prestige of our Institute of Mathematics and the mathematical community.”*

It would be difficult to find someone with more in-depth knowledge to offer such assessments, because Professor Le Tuan Hoa has worked closely with Professor Hoang Xuan Phu to build the Vietnam Journal of Mathematics, serving as Deputy Editor-in-Chief since 2011 and Head of VJM since 2023. Professor Le Tuan Hoa also served as the Managing Director of the Vietnam Institute for Advanced Studies in Mathematics (2011-2013), Director of the Institute of Mathematics of the Vietnam Academy of Science and Technology (2013-2017), President of the Vietnam Mathematical Society (2008-2013), President of the Southeast Asian Mathematical Society (2012-2013), and is currently Asian Member of the IMU's CDC, a position Professor Hoang Xuan Phu held more than ten years ago.

Kieu Anh

Hanoi, May 5, 2026