

# BMF Analytics Training Course at VIASM HANU Conference

*AISDL Team*

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On November 3 and 4, 2023, Dr. Nguyen Minh Hoang (Phenikaa University), co-author of the BMF Analytics [1], gave a lecture on computational approaches using *bayesvl* and BMF application for social science research. More than 40 researchers and lecturers interested in quantitative research and Bayesian statistics/MCMC computation (*bayesvl* [2]) from many institutions, such as Hanoi University of Science and Technology, Hanoi University, Foreign Trade University, etc., participated in the program.



Photo 1: BMF Analytics classroom.

The class delivered both theoretical and practical content. Participants took part in the course, employing real-world data from Distler & Scruggs [3]. In the picture below, the instructor and participants practiced together. Joint work brought about a collective atmosphere and built interactions, reflecting the genuine nature of research work.

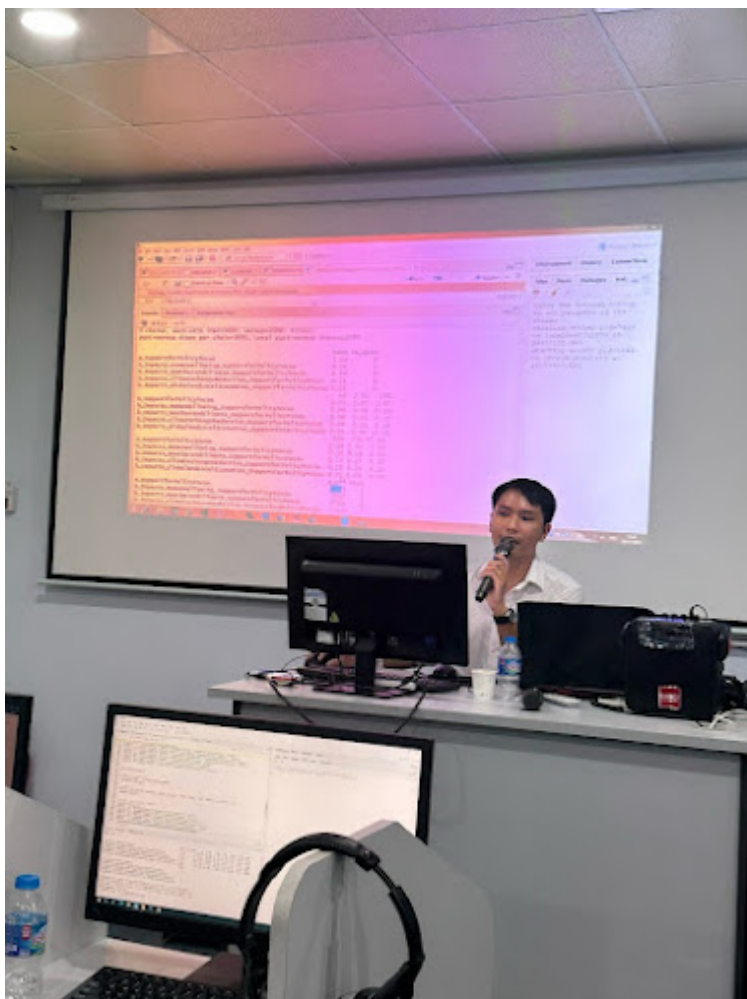


Photo 2: Performing MCMC

In the photo above, the large screen shows the instructor implementing the model to produce results. The (smaller) computer screen also shows that a participant has successfully implemented the algorithm and achieved the results.

The computed results obtained from the actual practices during the course will be further developed to become a manuscript, a joint product of participants of the BMF Analytics course.

*\*Note: These scientific sessions are co-organized by the Institute for Advanced Study in Mathematics (VIASM) and Hanoi University (HANU) in Hanoi [4].*

## References

[1] Vuong, Q. H., Nguyen, M. H., & La, V. P. (Eds.). (2022). *The mindspunge and BMF analytics for innovative thinking in social sciences and humanities*. Walter de Gruyter GmbH.

<https://www.amazon.com/dp/BoC4ZK3M74>

[2] La, V. P., & Vuong, Q. H. (2019). bayesvl: Visually learning the graphical structure of Bayesian networks and performing MCMC with ‘Stan’. <https://cran.r-project.org/package=bayesvl>

[3] Distler, L. N., & Scruggs, C. E. (2020). Survey data on perceptions of water scarcity and potable reuse from water utility customers in Albuquerque, New Mexico. *Data in Brief*, 29, 105289. <https://www.sciencedirect.com/science/article/pii/S2352340920301839>

[4] VIASM. (2023). Hội thảo về “Đổi mới phương pháp giảng dạy môn toán trong lĩnh vực khoa học xã hội”. <https://viasm.edu.vn/hdkh/giang-day-mon-toan-trong-linh-vuc-khxxh>