

## DEPARTMENT OF STATISTICS THE CHINESE UNIVERSITY OF HONG KONG

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## Obituary

Professor Gu Ming-Gao, a retired Professor of Department of Statistics, passed away on 14 December 2024 at the age of 63. He served as the Graduate Division Head of Department of Statistics from 2010 to 2013.

Professor Gu was a renowned statistician. He obtained his bachelor's degree in mathematics from Fudan University in 1982 and his PhD in statistics from Columbia University in 1987. After serving as an Assistant Professor at Columbia University for two years, he joined McGill University, initially as Assistant Professor and later as Associate Professor (with tenure). In 1998, he joined CUHK, dedicating nearly 20 years of his career here until his retirement in 2017.

Professor Gu was well-known for his theoretical and foundational contributions, as well as his ability to solve very challenging problems in survival analysis. In particular, he established the functional law of the iterated logarithm for the Kaplan-Meier estimator, published in the Annals of Probability, and the weak convergence of the two-dimensional log-rank score process for sequentially observed survival data, published in the Annals of Statistics. He established the weak convergence of the nonparametric maximum likelihood estimator for doubly censored data, a known difficult problem in survival analysis. He also derived the Edgeworth expansion for the Cox model, which earned him the 1993 Canadian Journal of Statistics Award. Professor Gu was also known for his major contributions to computational statistics, including the pioneering work of stochastic approximation for computation, published in the Proceedings of the National Academy of Sciences.

In 2016, Professor Gu generously donated one million Hong Kong dollars to CUHK to establish two awards to the undergraduate students of the Department of Statistics. The awards, known as "Fan Fang Qi Yang Memorial Scholarship" and "Fan Fang Qi Ying Memorial Bursary", have benefited over 36 students majored in statistics and risk management science.

Professor Gu will always be remembered for his exceptional service and contributions to the Department, CUHK, and the field of statistics.