

# Eli Yi-Liang Tung

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## University address:

Department of Analytics and Operations  
Business School, National University of Singapore  
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## Education

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**Ph.D.**, Division of Biostatistics, Graduate Institute of Epidemiology,  
National Taiwan University (NTU), Taiwan

- Dissertation: *Semiparametric Bayesian Inference for Clustered Data*
- Advisor: Chuhsing Kate Hsiao, Ph.D.

**M.S.**, Department of Industrial Engineering and Management,  
National Chiao Tung University (NCTU), Taiwan

- Dissertation: *A Goal-Programming Optimization Model for the Matching Problem in Observational Studies*
- Advisors: Hsi-Mei Hsu, Ph.D. and Hui-Chih Hung, Ph.D.

**B.S.**, Department of Public Health, National Taiwan University, Taiwan

## Research Interests

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With training in biostatistics and industrial engineering on optimization, my research interest can be classified into two categories:

### Methodological development

Business analytics; Discrete choice models; Bayesian statistical methods; Optimization algorithms used in business applications, bioinformatics and machine learning.

### Empirical research

Health care management; Health promotion and well-being for community adults; Quality and efficiency in healthcare systems; Corporate social responsibility.

## Academic Positions

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2019-Present      Lecturer, Department of Analytics & Operations, National University of Singapore, Singapore (NUS), Singapore

2015-2018      Instructor, Department of Analytics & Operations, National University of Singapore, Singapore (NUS), Singapore

2014-2015	Postdoctoral Research Fellow, Department of Industrial and Systems Engineering, National University of Singapore, Singapore
2006-2007	Assistant Professor, Department of Environmental and Occupational Health, National Cheng Kung University (NCKU), Taiwan
2005-2006	Postdoctoral Fellow, Institute of Statistical Science, Academia Sinica, Taiwan

## Publications

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### Journal Papers

- Chen, E. Y.-J. **Tung, E. Y.-L.**, and Enright, R. D (2019). Effects of pre-parenthood sense of self on the transition to parenthood adjustment. *Journal of Marriage and Family*. (Under review).
- Chen, E. Y.-J., Enright, R. D., and **Tung, E. Y.-L.** (2016), "The Influence of Family Unions and Parenthood Transitions on Self-Development." *Journal of Family Psychology*, 30(3), 341-352.
- Shih, Y. F., Hsiao, C. K., **Tung, Y. L.**, Kin, L.L.K., Chen, C. J., and Hung, P. T. (2004), "The Prevalence of Astigmatism in Taiwan Schoolchildren," *Optometry and Vision Science*, 81(2), 94-98.
- Chueh, L.-H., Chen, S.-C., Lee, C.-M., Hsu, Y.-Y., Pai, S.-F., Kuo, M.-L., Chen, C.-S., Duh, B.-R., Yang, S.-F., **Tung, Y.-L.**, and Hsiao, C. K. (2003), "Current Technical Quality of Root Canal Treatment in Taiwan," *International Endodontic Journal*, 36, 416-422.

### Case Reports

- Tung, E. Y.-L.**, Chou, M., and Toh, L. T. F. (2016), "Forecasting on the Returned Cores in the Remanufacturing Industry: A Case Study." (The case report is the output of an empirical project with a global remanufacturing company. Under my co-supervision, BIZ student Lanz Toh won the undergraduate researcher prize)

### Technical Reports

- Tung, E. Y.-L.** and Huang, B. (2017), Revisit Bayesian Binary Regression via Sequential Monte Carlo.
- Tung, E. Y.-L.** (2017), Sequential Monte Carlo Samplers for Bayesian Generalized Linear Mixed Models.
- Tung, E. Y.-L.** (2017), A Novel Bayesian Model for Discrete Choice Modeling
- Tung, E. Y.-L.** (2017), Gaussian Coupla-based Multivariate Logistic Regression

## Teaching Experience

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### Course Instructor:

- Fall 2018, Spring 2019: DAO2702 Programming for Business Analytics
- Spring 2018: DSC4213 Analytical Tools for Consulting
- Fall 2018, Spring 2018, Fall 2017: DAO1704 Decision Analytics using Spreadsheets
- Fall 2018, Spring 2017, Fall 2016, Spring 2016: DSC1007X Business Analytics – Model & Decisions
- Spring 2007 (NCKU): Advanced Biostatistics; Clinical Study Design

- Fall 2006 (NCKU): Biostatistics; Biostatistics Programming

**Tutor:**

- Fall 2016: DSC2008 Business Analytics – Data & Decisions; DSC2006 Operations Management
- Spring 2016: DSC2006 Operations Management
- Fall 2015: DSC2008 Business Analytics – Data & Decisions; DSC2006 Operations Management
- Spring 2015: DSC2008 Business Analytics – Data & Decisions; DSC2006 Operations Management

**Teaching Assistant:**

- Summer 2015: Operations Management
- Spring 2013 (NCTU): Operations Research 2; Operations Research and Applications
- Fall 2012 (NCTU): Operations Research 1

**Student Supervision**

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- AY 2014-15: Lanz Toh Ting Feng; *Field Service Project (The student wins the undergraduate researcher prize)*
- AY 2017-18: Yoe Shu Hui, Andrea Yeo Si Han, Charmaine Lee Sho Gin, and Gan Wey Ian; *Field Service Project*
- AY 2017-18 (Sem 2): Goh Jie Da, Patrick Ching Wee Keat, Nguyen Phuong Nhu, George Ng Zheng Yuan; *First Department of Analytics and Operations (DAO) Poster Competition (the students win the second place)*
- AY 2018-19 (Sem 2): HEONG Huai Min, Darren TAN Yi Chen, PEH Hui Min, and TAN Pang Wun Malcolm; *World Asian Case Competition 2019 by the Academy of Asian Business*
- AY 2018-19 (Sem 2): Rebekah Yeo; *Honours Dissertation: does a business school education improve the managerial skills of the students?*

**Technical Skills**

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- Programming language: C++, R, Python, and Matlab
- Statistical software: extensive experience with SAS, R, LISREL and WinBUGS
- Optimization software: CPLEX
- Text formatting software: LaTeX, Word, Excel, and PowerPoint

**Presentations**

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- Chen, E. Y.-J., and **Tung, E. Y.-L.** (2019, March). *The dynamics between new parents' sense of self and early parenting practice*. Paper presented at the 2019 Society for Research in Child Development Biennial Meeting, Baltimore, Maryland. (Peer-reviewed)
- Chen, E. Y.-J., and **Tung, E. Y.-L.** (2017, November). *Early Positive Sense of Self in Promoting Emerging Adults' Transition to Parenthood Adjustment*. Paper presented at the meeting of the 8th Conference on Emerging Adulthood, Washington D.C. (Peer-reviewed)

- Chen, E. Y.-J., **Tung, E. Y.-L.**, and Enright, R. D. (2014, April). *Positive Marital Interactions Support Positive Parenting Behaviors over the First 5 Years after Childbirth*. Poster presented at the meeting of the American Educational Research Association, Philadelphia, PA. (Peer-reviewed)
- Chen, E. Y.-J., **Tung, E. Y.-L.**, and Enright, R. D. (2013, October). *Do Parents and Non-parents in Emerging Adulthood Show Different Developmental History in Their Self-view?* Poster presented at the meeting of the 6th Conference on Emerging Adulthood, Chicago, IL. (Peer-reviewed)
- Tung, E. Y.-L.** (2009, August). *Sequential Monte Carlo Samplers for Bayesian Generalized Linear Mixed Models*. Poster presented at the Joint Statistical Meetings, Washington, DC.
- Tung, Y.-L.** (2007, August). *Bayesian Adaptive LASSO for Linear Regression Models*. Presented at the Joint Statistical Meetings, Salt Lake City, UT.
- Tung, Y.-L.** (2004, March). *Bayesian Analysis of Mixed-effects Time Varying-Coefficient Models for Longitudinal Data*. Presented at the Spring Meetings of the Eastern North American Region of the International Biometric Society, Pittsburgh, PA.

### Invited Talks

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- Bayesian Adaptive LASSO for Generalized Linear Regression Models*, Institute of Statistical Science, Academia Sinica, Taiwan (2006, December)
- Bayesian Adaptive LASSO for Linear Regression Models*, Department of Statistics, National Cheng Kung University, Taiwan (2006, December)
- Semiparametric Bayesian Inference for Clustered Data*, Department of Applied Mathematics, National Chung Hsing University, Taiwan (2006, March)
- Semiparametric Bayesian Inference for Clustered Data*, Department of Environmental and Occupational Health, National Cheng Kung University, Taiwan (2006, March)

### Awards

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- The Outstanding Teaching Assistant Award (2013) – NCTU
- Student Academic Achievement Award (Spring 2013, Fall 2012) – NCTU
- Student Travel Award (March 2004) – NTU
- Student Academic Achievement Award (Spring 2000, Fall 1999) – NTU

### Services

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- Member of BA task force, AY2017-18, AY2018-19
- Invited Lecturer for TEC R Programming Workshop, June 2018