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#### Education

B.S., Department of Mathematics, National Taiwan University, 1992.9~1996.6 M.A., Institute of Statistics, National Tsing Hua University, 1996.9~1999.6 Ph.D., Graduate Institute of Epidemiology, National Taiwan University, 2000.9~2004.6

#### **Research Interest**

Survival analysis, Biostatistics

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$H(\mathbf{X})$	perience

08/2004-07/2008	Assistant Professor, Department of Applied Mathematics, Providence
	University
08/2008-07/2013	Assistant Professor, Department of Statistics and Informatics Science,
	Providence University
08/2013-07/2016	Associate Professor, Department of Statistics and Informatics Science,
	Providence University
08/2016-07/2020	Associate Professor, Institute of Public Health, National, Yang-Ming
	University
08/2020-present	Professor, Institute of Public Health, National, Yang-Ming University
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### **Editorial Service**

Associate Editor: Lifetime Data Analysis, 2025 - present

#### Main courses taught

Biostatistics Mathematical Statistics Survival Analysis

#### Projects/grants

- 1. The statistical analysis of multivariate current status data with informative censoring (2012/08/01  $\sim 2013/07/31$ , NSC 101-2118-M-126 -001)
- 2. Statistical analysis of multivariate recurrent event data in the presence of a dependent terminal event  $(2013/08/01 \sim 2014/07/31, NSC 102-2118-M-126 -001)$
- 3. The statistical analysis of failure time data in the presence of informative interval censoring  $(2014/08/01 \sim 2015/07/31, MOST 103-2118-M-126-001)$
- 4. The statistical analysis for longitudinal data with a dependent terminal event ( $2015/08/01 \sim 2016/07/31$ , MOST 104-2118-M-126-002)

- 5. Semiparametric transformation model for interval-censored survival data with longitudinal covariates  $(2016/08/01 \sim 2017/07/31, MOST 105-2118-M-010-001)$
- 6. Statistical analysis of semiparametric transformation model for left-truncated and interval-censored data ( $2017/08/01 \sim 2018/07/31$ , MOST 106-2118-M-010-001)
- 7. Analysis of Interval-censored Survival Data with Dependent Examination times ( $2018/08/01 \sim 2019/07/31$ , MOST 107-2118-M-010-001)
- 8. The statistical inference for length-biased and interval-censored data in the presence of cure rate  $(2019/08/01 \sim 2020/07/31, MOST 108-2118-M-010-001)$
- 9. Nonparametric and semiparametric statistical inference for cure model analysis with competing risks data ( $2020/08/01 \sim 2022/07/31$ , MOST 109-2118-M-010 -001 -MY2)
- 10.Mean residual life model under various data structures: cure model, competing risks data, mismeasured covariates (2022/08/01~2024/07/31, MOST 111-2118-M-A49 -002 -MY2)
- 12. The quantile regression-mixture cure model for censored data (2024/08/01~2026/07/31, NSTC 113-2118-M-A49 -005 -MY2)

# **Publication** (\*corresponding author) **Statistical papers**

- 1. Chyong-Mei Chen, Chih-Ching Lin, Chih-Cheng Wu, Jia-Ren Tsai\*. 2024. Mixture mean residual life model for competing risks data with mismeasured covariates. *Journal of Applied Statistics* (https://doi.org/10.1080/02664763.2024.2426015)
- 2. Chyong-Mei Chen\*; Shuo-Chun Weng; Jia-Ren Tsai; Pao-sheng Shen. 2023. The mean residual life model for the right-censored data in the presence of covariate measurement errors. *Statistics in Medicine* 42:2557-2572.
- 3. Chyong-Mei Chen, Hsin-Jen Chen, Yingwei Peng\*. 2023. Mean residual life cure models for right-censored data with and without length-biased sampling. *Biometrical Journal*. 2100368
- 4. Pao-sheng Shen, Yingwei Peng, Hsin-Jen Chen, Chyong-Mei Chen\*. 2022. Maximum likelihood estimation for length-biased and interval-censored data with a nonsusceptible fraction. *Lifetime Data Analysis* 28:68-88.
- 5. Chyong-Mei Chen\*, Pao-sheng Shen, Ting-Hsuan Lee. 2022. A gamma-frailty model for interval-censored data with dependent examination times: a computationally efficient approach. *Communications in Statistics Simulation and Computation* 51: 6071–6082.
- 6. Shuo-Chun Weng, Yin-Chu Chang, Chyong-Mei Chen\*. 2022. Joint analysis of longitudinal and interval-censored failure time data. *Communications in Statistics Simulation and Computation* 51:5333-5349.
- 7. Chyong-Mei Chen, Pao-sheng Shen\*, Yi Liu. 2021. On semiparametric transformation model with LTRC data: pseudo likelihood approach. *Statistical Papers* 62:3–30.
- 8. Chyong-Mei Chen\*, Pao-sheng Shen, Chih-Ching Lin, Chih-Cheng Wu. 2020. Semiparametric mixture cure model analysis with competing risks data: Application to vascular access thrombosis data. *Statistics in Medicine* 39:4086–4099.
- 9. Pao-sheng Shen, Hsin-Jen Chen, Wen-Harn Pan, Chyong-Mei Chen\*. 2019. Semiparametric regression analysis for left-truncated and interval-censored data without or with a cure fraction.

- Computational Statistics and Data Analysis 140, 74-87.
- 10. Chyong-Mei Chen\*, Pao-sheng Shen, Wei-Lun Huang. 2019. Semiparametric transformation models for interval-censored data in the presence of a cure fraction. *Biometrical Journal* **61**, 203–215.
- 11. Chyong-Mei Chen\*; Pao-sheng Shen and Yi-Kuan Tseng. 2018. Semiparametric transformation joint models for longitudinal covariates and interval-censored failure time. *Computational Statistics and Data Analysis*, 128, 116-127.
- 12. Chyong-Mei Chen and Pao-Sheng Shen\*. 2018. Conditional maximum likelihood Estimation in semiparametric transformation model with LTRC data. *Lifetime Data Analysis* 24, 250-272.
- 13. Pao-Sheng Shen\*, Chyong-Mei Chen. 2018. Aalen's linear model for doubly censored data. Statistics 52, 1328–1343.
- 14. Hong-Wei Tam, Chyong-Mei Chen, Pui-Ying Leong, Chao-Hsi Chen, Yuan-Chao Li, Yu-Hsun Wang, Li-Chi Lin, Jeng-Yuan Chiou and James Cheng-Chung Wei. 2018. Methotrexate might reduce ischemic stroke in patients with rheumatoid arthritis: a population-based retrospective cohort study. International Journal of Rheumatic Diseases 21. 1591-1599.
- 15. Chyong-Mei Chen\* and Pao-Sheng Shen. 2017. Semiparametric Regression Analysis of Failure Time Data with Dependent Interval Censoring. *Statistics in Medicine* 36, 3398-3411
- 16. Chen, Chyong-Mei; Shen, Pao-sheng\*; James Cheng-Chung Wei and Lichi Lin. 2017. A Semiparametric mixture cure survival model for left-truncated and right-censored data. *Biometrical Journal* 59, 270–290.
- 17. Huang, Chia-Hui; Li, Bowen; Chen, Chyong-Mei; Wang, Weijing; Chen, Yi-Hau\*. 2017. Subdistribution Regression for Recurrent Events Under Competing Risks: with Application to Shunt Thrombosis Study in Dialysis Patients. *Statistics in Biosciences* 9, 339-356.
- 18. Ming-Chi Wu, Xun Xu, Shan-Ming Chen, Yeu-Sheng Tyan, Jeng-Yuan Chiou, Yu-Hsun Wang, Li-Chi Lin, Chyong-Mei Chen, James Cheng-Chung Wei. 2017. Impact of Sjogren's syndrome on Parkinson's disease: A nationwide case-control study. *PLoS One* 12, e0175836.
- 19. Yao-Min Hung, Lichi Lin, Chyong-Mei Chen, Jeng-Yuan Chiou, Yu-Hsun Wang, Paul Yung-Pou Wang, James Cheng-Chung Wei. 2019. The effect of anti-rheumatic medications for coronary artery diseases risk in patients with rheumatoid arthritis might be changed over time: A nationwide population-based cohort study. PLoS One 12, e0179081.
- 20. Lu, Tai-Fang; Hsu, Chao-Min; Shu, Kuo-Hsiung; Weng, Shuo-Chun; Chen, Chyong-Mei\*. 2016. Joint analysis of longitudinal data and competing terminal events in the presence of dependent observation times with application to chronic kidney disease. *Journal of Applied Statistics* 43, 2922–2940.
- 21. Chen, Chyong-Mei\* and Chen, Chen-Hsin. 2016. Heteroscedastic transformation cure regression models. *Statistics in Medicine*, 35, 2359-2376.
- 22. Chen, Chyong-Mei; Shen, Pao-sheng\*; Chuang and Ya-Wen, 2016. The partly Aalen's model for recurrent event data with a dependent terminal Event. *Statistics in Medicine* 35, 268-281.

- 23. Chen, Chyong-Mei\*; Chuang, Ya-Wen and Shen, Pao-sheng, 2015. Two-stage estimation for multivariate recurrent event data with a dependent terminal event. *Biometrical Journal* 57, 215-233.
- 24. Chyong-Mei Chen, Wei, James Cheng-Chung Wei, Chao-Min Hsu\*, Ming-Yung Lee. 2014. Regression analysis of multivariate current status data with dependent censoring: application to ankylosing spondylitis data. *Statistics in Medicine* 33, 772-785.
- 25. Weng, Shuo-Chun; Tarng, Der-Cherng; Chen, Chyong-Mei; Cheng, Chi-Hung; Wu, Ming-Ju; Chen, Cheng-Hsu; Yu, Tung-Min; Shu, Kuo-Hsiung\*, 2014. Estimated glomerular filtration rate decline is a better risk factor for outcomes of systemic disease-related nephropathy than for outcomes of primary renal diseases. *PLoS ONE* 9, e92881.
- 26. Chen, Chyong-Mei\*; Lu, Tai-Fang C.; Hsu, Chao-Min, 2013. Association estimation for clustered failure time data with a cure fraction. *Computational Statistics and Data Analysis* 57, 210-222.
- 27. Chen, Chyong-Mei\*; Lu, Tai-Fang C.; Chen, Man-Hua; Hsu, Chao-Min, 2012. Semiparametric transformation models for current status data with informative censoring. *Biometrical Journal* 54, 641–656.
- 28. Chen, Chyong-Mei\*; Lu, Tai-Fang C. 2012. Marginal analysis of multivariate failure time data with a surviving fraction based on semiparametric transformation cure models. *Computational Statistics and Data Analysis* 56, 645-655.
- 29. Chen, Chyong-Mei\*; Yu, Chang-Yung. 2012. A two-stage estimation in the Clayton-Oakes model with marginal linear transformation models for multivariate failure time data. *Lifetime Data Analysis* 18, 94-115.

## Interdisciplinary collaborative papers

- Shuo-Chun Weng, Chyong-Mei Chen, Yu-Chi Chen, Ming-Ju Wu and Der-Cherng Tarng\*.
   2021. Trajectory of Estimated Glomerular Filtration Rate and Malnourishment Predict Mortality and Kidney Failure in Older Adults With Chronic Kidney Disease. Frontiers in Medicine 8, 760391.
- 2. Ching-Po Li, Chyong-Mei Chen, Chia-Hao Chan, Szu-Yuan Li, Ming-Tsun Tsai, Chun-Fan Chen, Yung-Tai Chen, Tz-Heng Chen, Fan-Yu Chen, Ching-Han Yang, Yi-Hsin Chou, Tsung-Yueh Wang, Ann Charis Tan\* and Chih-Ching Lin\*. 2021. The Effect of Far-Infrared Therapy on the Peritoneal Membrane Transport Characteristics of Uremic Patients Undergoing Peritoneal Dialysis: An Open-Prospective Proof-of-Concept Study. Membranes 11, 669.
- 3. Pi-Wei Chan, Jen-Hwey Chiu, Nicole Huang, Chyong-Mei Chen, Hung Yu, Chun-Yu Liu\* and Chung-Hua Hsu\*. 2021. Influence of Traditional Chinese Medicine on Medical Adherence and

- Outcome in Estrogen Receptor (+) Breast Cancer Patients in Taiwan: A Real-World Population-Based Cohort Study. *Phytomedicine* 80, 153365.
- 4. Yi-Kai Fu, Hsueng-Mei Liu, Li-Hsuan Lee, Ying-Ju Chen, Sheng-Hsuan Chien, Jeong-Shi Lin, Wen-Chun Chen, Ming-Hsuan Cheng, Po-Heng Lin, Jheng-You Lai, Chyong-Mei Chen\* and Chun-Yu Liu\*. 2021. The TVGH-NYCU Thal-Classifier: Development of a Machine-Learning Classifier for Differentiating Thalassemia and Non-Thalassemia Patients. *Diagnostics* 11, 1725.
- 5. Yen-Hung Yao, Chyong-Mei Chen, Yiing-Jenq Chou\* and Nicole Huang\*. 2020. Impact of time-varying center volume on technique failure and mortality in peritoneal dialysis. *Peritoneal Dialysis International* 41, 569–577.
- 6. Chiung-Yu Shih, Chiu-Ya Huang, Mei-Lun Huang, Chyong-Mei Chen, Chih-Ching\* and Lin Fu-In Tang\*. 2019. The association of sociodemographic factors and needs of haemodialysis patients according to Maslow's hierarchy of needs. *Journal of clinical nursing* 28, 270–278.
- 7. Hong-Wei Tam, Chyong-Mei Chen, Pui-Ying Leong, Chao-Hsi Chen, Yuan-Chao Li, Yu-Hsun Wang, Li-Chi Lin, Jeng-Yuan Chiou, James Cheng-Chung Wei\*. 2018. Methotrexate might reduce ischemic stroke in patients with rheumatoid arthritis: a population-based retrospective cohort study. *International Journal of Rheumatic Diseases* 21, 1591–1599.
- 8. Yao-Min Hung, Lichi Lin, Chyong-Mei Chen, Jeng-Yuan Chiou\*, Yu-Hsun Wang, Paul Yung-Pou Wang, James Cheng-Chung Wei\*. 2017. The effect of anti-rheumatic medications for coronary artery diseases risk in patients with rheumatoid arthritis might be changed over time: A nationwide population-based cohort study. PLoS ONE 12, e0179081.
- 9. Ming-Chi Wu, Xun Xu, Shan-Ming Chen, Yeu-Sheng Tyan, Jeng-Yuan Chiou, Yu-Hsun Wang, Li-Chi Lin, Chyong-Mei Chen, James Cheng-Chung Wei\*. 2017. Impact of Sjogren's syndrome on Parkinson's disease: A nationwide case-control study. PLoS ONE 12, e0175836.
- 10. Hsu, H. F.\*, Chen, C,-M., Chen, S.-J. and Jou, S.-C. 2010. A pilot study of the national survey of drug treatment institutions in Taiwan. *Crime and Criminal Justice International* 14, 23-47.
- 11. 陳瓊梅\*;黃徵男, 2010. Spatial analysis of the residence of drug abusers in Taipei City. *Journal of Crime, Punishment and Corrections* 2, 1-11.
- 12. 陳瓊梅,黃徵男\*,呂鴻廷, 2009. 利用地理資訊系統 (Geographic Information System) 分析藥物濫用者個別及社區變項對再犯率的影響, 犯罪、刑罰與矯正研究 1,1-18.
- 13. Chien, Li-Ren; Buehre, Daniel J.; Yang, Chin-Yi\*; Liao, Checchen; Chen, Chyong-Mei. 2008. What about teaching learners in accordance of their aptitude? a study based on DICE TDD system in learning to programming. *Special Issue of International Journal of the Computer, the Internet and Management* 16, 16.1-16.11.
- 14. Huang, Chen-Nan; Jou, Shr-Chi\*; Chen, Chyong-Mei. 2007. Predictors among drug offenders in Cox's proportional hazard model with a focus on the interaction between gender and class of drugs Used. *Law Enforcement Review* 3, 23-41.