

**Sy Han (Steven) Chiou, Ph.D.**

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ACADEMIC APPOINTMENTS	<b>Assistant Professor</b> Department of Statistics and Data Science, Southern Methodist University	August 2023 – Present
	<b>Biostatistician</b> Biostatistics Core, Department of Surgery, University of California San Francisco	August 2021 – August 2024
	<b>Assistant Professor</b> Department of Mathematical Science, The University of Texas at Dallas	August 2017 – July 2023
	<b>Postdoctoral Research Fellow</b> Department of Biostatistics, Harvard T.H. Chan School of Public Health Supervisor: Rebecca Betensky, Ph.D.	August 2015 – July 2017
	<b>Assistant Professor</b> Department of Mathematics and Statistics, University of Minnesota Duluth	August 2013 – May 2015
EDUCATION	<b>University of Connecticut</b> , Storrs, CT Ph.D., Statistics, May 2013 <b>Thesis Topic:</b> Statistical methods and computing for semiparametric accelerated failure time model with induced smoothing. <b>Advisers:</b> Jun Yan, Ph.D. and Sangwook Kang, Ph.D. <b>University of Connecticut</b> , Storrs, CT B.S., Statistics, May 2008 B.S., Applied Mathematical Sciences, May 2008 <i>Member of the National mathematics Honorary Society, Pi Mu Epsilon.</i>	
REFEREED JOURNAL PUBLICATIONS	<ol style="list-style-type: none"><li><b>Chiou, S. H.</b>, Su, C.-L., and Lin, F.-C. (2024+) “Fitting cure models using pseudo-observations approaches with the R Package <i>pseudoCure</i>.” <i>Japanese Journal of Statistics and Data Science</i>, Special issue on <i>Recent Advances in Biostatistics</i>, accepted.</li><li>Kim, K.H., <b>Chiou, S. H.</b>, Kang, S. (2024+) “<b>gris</b>: Quantile regression model for residual lifetime using an induced smoothing approach.” <i>R Journal</i> accepted.</li><li>Gutierrez, S. A., <b>Chiou, S. H.</b>, Raghu, V., Cole, C. R., Rhee, S., Lai, J. C., and Wadhwani, S. I. (2024) “Associations between hospital-level socioeconomic patient mix and rates of central line-associated bloodstream infections in short bowel syndrome: A retrospective cohort study” <i>Journal of Parenteral and Enteral Nutrition</i> 48 (6), p 678-685.</li></ol>	

4. Cullaro, G., **Chiou, S. H.**, Fenton, C., Ge, J., McCulloch, C. E., Rubin, J., Shui, A. M., Yao, F., and Lai, J. C. (2024) "Outpatient mean arterial pressure: A potentially modifiable risk for acute kidney injury and death among patients with cirrhosis" *Liver Transplantation* (30) 7, p679-688.
5. Yu, X., Zoh, R. S., Fluharty, D. A., Mestre, L. M., Valdez, D., Tekwe, C. D., Vorland, C. J., Jamshidi-Naeini, Y., **Chiou, S. H.**, Lartey, S. T., and Allison, D. B. (2024) "Misstatements, misperceptions, and mistakes in controlling for covariates in observational research" *eLife* 13, e82268.
6. Gutierrez, S. A., **Chiou, S. H.**, Rhee, S., Lai, J. C., and Wadhwani, S. I. (2024) "The influence of neighborhood income on healthcare utilization in pediatric liver transplant" *Journal of Pediatric Gastroenterology and Nutrition* DOI: 10.1002/jpn3.12234
7. Calthorpe, L., **Chiou, S. H.**, Rubin, J., Huang, C. Y., Feng, S., and Lai, J. (2024) "A modified Hospital Frailty Risk Score for patients with cirrhosis undergoing abdominal operations" *Hepatology* 10.1097. DOI: 10.1097/HEP.0000000000000794
8. Wang, M., **Chiou, S. H.**, Ganger, D., Ruck, J., Huang, C. Y., Kappus, M. R., King, E. A., Ladner, D. P., Rahimi, R. S., Duarte-Rojo, A., Volk, M. L., Tevar, A. D., Verna, E. C., and Lai, J. C., (2024). "Liver transplantation provides survival benefit at all levels of frailty: From the Multicenter Functional Assessment in Liver Transplantation Study" *Hepatology* PMID: 39047086
9. Zhang, G., Cedars, M. I., Huddleston, H., **Chiou, S. H.**Chiou, Srisengfa, Y. T., and Sarkar, M. (2023). "Polycystic ovary syndrome increases fibrosis severity in young women with NAFLD." *Gastroenterology* 164 (6) s-1312.
10. Greenberg, A.L., Brand, N. R., Zambeli-Ljepović, A., Barnes, K.E., **Chiou, S.**, Rhoads, K.F., Adam, M.A., and Sarin, A., (2023). "Exploring the complexity and spectrum of racial/ethnic disparities in colon cancer management" *International Journal for Equity in Health*, 22 (1), 1 - 15.
11. Smeltzer, J.C., **Chiou, S.**, and Shembel, A.C., (2023). "Interoception, voice symptom reporting, and voice disorders." *Journal of Voice*, accepted.
12. Smeltzer, J.C., **Chiou, S.**, and Shembel, A.C., (2023). "Patient profiling: Determining the effects of patient factors on vocal fatigue." *Journal of Voice*, accepted.
13. **Chiou, S.**, Xu, G., Yan, J. and Huang, C.Y., (2023). "Regression modeling for recurrent events using R Package **reReg**." *Journal of Statistical Software*, 105, 1-34.
14. Sun, Y., **Chiou, S.**, Wu, C.O., McGarry, M. and Huang, C.Y., (2023). "Dynamic risk prediction using survival tree ensembles with application to Cystic Fibrosis." *Annals of Applied Statistics*, 17 (2), 1375.
15. Su, C.L., **Chiou, S.**, Lin, F.C. and Platt, R.W., (2022). "Analysis of survival data with cure fraction and variable selection: A pseudo-observations approach." *Statistical Methods in Medical Research*, 31 (11), 2037-2053.
16. Greenberg, A., Brand, N. R., **Chiou, S.**, Rhoads, K., Adam, M., & Sarin, A. (2022). "Racial disparities in colon cancer management in the National Cancer Database." *Journal of Clinical Oncology*, 40, 4\_suppl, [https://doi.org/10.1200/JCO.2022.40.4\\_suppl.018](https://doi.org/10.1200/JCO.2022.40.4_suppl.018)
17. Brand, N.R., Greenberg, A.L., **Chiou, S.**, Adam, M. and Sarin, A., (2022). "Association of distance, region, and insurance with advanced colon cancer at initial diagnosis." *JAMA Network Open*, 5 (9), pp.e2229954-e2229954.
18. Qian, J., **Chiou, S.**, and Betensky, R.A. (2022). "Transformation model based regression with dependently truncated and independently censored data." *Journal of the Royal Statistical Society. Series C: Applied Statistics*, 71 (2), 395-416.
19. Fernández, E., Yang, S., **Chiou, S.**, Moon, C., Zhang, C., Yao, B., Xiao, G. and Li, Q., (2022). "SAFARI: shape analysis for AI-segmented images." *BMC medical imaging*, 22 (1), 1-7.
20. Alyabs, N. and **Chiou, S.**, (2022). "The missing indicator approach for accelerated failure time model with covariates subject to limits of detection." *Stats*, 5 (2) 494-506.

21. Sun, Y., **Chiou, S.**, Marr, K.A., and Huang, C.-Y. (2022). “Statistical inference on shape-and size-indexes for counting processes.” *Biometrika*, 109 (1), 195–208.
22. Vakulenko-Lagun, B., Qian, J., **Chiou, S.**, Wang, N., and Betensky, R.A. (2022). “Nonparametric estimation of the survival distribution under covariate-induced dependent truncation” *Biometrics*, 78 (4), 1390–1401.
23. Sun, Y., **Chiou, S.**, and Wang, M.-C. (2020) “ROC-guided survival trees and ensembles.” *Biometrics*, 76 (4), 1177–1189.
24. Xu, G., **Chiou, S.**, Yan, J., Marr, K., and Huang, C.-Y. (2020). “Generalized scale-change models for recurrent event processes under informative censoring.” *Statistica Sinica*, doi:http://dx.doi.org/10.5705/ss.20XX.XXX.
25. **Chiou, S.**, Betensky, R. A., and Balasubramanian, R. (2019). “The missing indicator approach for censored covariates subject to limit of detection in logistic regression models.” *Annals of Epidemiology*, 38, 59–64.
26. Vakulenko-Lagun, B., Qian, J., **Chiou, S.**, and Betensky, R. A. (2019). Nonidentifiability in the presence of factorization for truncated data. *Biometrika*, 106 (3), 724–731.
27. **Chiou, S.**, Austin, M., Qian, J., and Betensky, R. A. (2019) “Transformation model estimation of survival under dependent truncation and independent censoring.” *Statistical Methods in Medical Research*, 28 (12), 3785–3798.
28. Ly, K., Oakley, D., Pine, A., Frosch, M., **Chiou, S.**, Betensky, R., Pomerantz, S., Hochberg, F., Batchelor, T., Cahill, D., and Dietrich, J. (2019) “Wide Range of Clinical Outcomes in Patients with Gliomatosis Cerebri Growth Pattern: A Clinical, Radiographic, and Histopathologic Study.” *Oncologist*, 24 (3): 402–413.
29. **Chiou, S.**, Huang, C.-Y., Xu, G., and Yan, J. (2019) “Semiparametric regression analysis of panel count data: A practical review.” *International Statistical Review*, 87 (1): 24–43.
30. **Chiou, S.**, Qian, J., Mormino, E., Bentensky, R., Alzheimer’s Disease Neuroimaging Initiative, Australian Imaging Biomarkers and Lifestyle Flagship Study of Aging, Harvard Aging Brain Study. (2018) “Permutation tests for general dependent truncation.” *Computational Statistics & Data Analysis*, 128: 308–324.
31. Beehler, S., **Chiou, S.**, Balmer, B. and Li, X. (2018) “Intrarural variation in mental health status and help-seeking of veterans in the upper midwest.” *Journal of Rural Mental Health*, 42 (3-4): 161–173.
32. Qian, J., **Chiou, S.**, Maye, J. E., Atem, F., Johnson, K. A., and Betensky, R. (2018) “Threshold regression to accommodate a censored covariate.” *Biometrics*, 74(4): 1261–1270.
33. Montero-Chacón, L.B., Padilla-Cuadra, J.I., **Chiou, S.**, and Torrealba-Acosta, G. (2018) “High-density lipoprotein, mean platelet volume, and uric acid as biomarkers for outcomes in patients with sepsis: An observational study.” *Journal of Intensive Care Medicine*, 0885066618772825.
34. Torrealba-Acosta, G., Carazo-Cespedes, K., **Chiou, S.**, O’Brien, A., and Fernandez-Morales, H. (2018) “Epidemiology of stroke in Costa Rica: A seven-year hospital-based acute stroke registry of 1319 consecutive patients.” *Journal of Stroke and Cerebrovascular Disease*, 27 (5): 1143–1152.
35. **Chiou, S.**, Xu, G., Yan, J., and C.-Y. Huang (2018) “Semiparametric estimation of the accelerated mean model with panel count data under informative examination times.” *Biometrics*, 74 (3): 944–953.
36. Lee, S., Daimon, M., Di Tullio, M., Homma, S., Hasegawa, T., **Chiou, S.**, Nakao, T., Hirokawa, M., Mizuno, Y., Yatomi, Y., Yamazaki, T., and Komuro, I. (2018) “Beneficial effect of body weight control on left ventricular diastolic function in the general population: An analysis of longitudinal data from a health check-up clinic.” *European Heart Journal-Cardiovascular Imaging*, 19(2): 136–142.

37. Betensky, R. A. and **Chiou, S.** (2017) “Correlation among baseline variables yields non-uniformity of p-values.” *PLoS One*, 12(9): e0184531.
38. Xu, G., **Chiou, S.**, Huang, C.-Y., Wang, M.-C. and Yan, J. (2017) “Joint scale-change models for recurrent events and failure time.” *Journal of the American Statistical Association*, 112 (518): 764–805.
39. **Chiou, S.** and Xu, G. (2017) “Rank-based estimation for semiparametric accelerated failure time model under length biased sampling.” *Statistics and Computing*, 27 (2): 483–500.
40. Wang, W., Chen, M.-H., **Chiou, S.**, Lai, H.-C., Wang, X., Zhang, Z. and Yan, J. (2016) “Onset of persistent *Pseudomonas Aeruginosa* infection in children with cystic fibrosis with interval censored data.” *BMC Medical Research Methodology*, 16 (122): 1–10.
41. **Chiou, S.**, Kang, S. and Yan, J. (2015) “Rank-based estimating equations with general weight for the accelerated failure time model: An induced smoothing approach.” *Statistics in Medicine*, 34 (9): 1495–1510.
42. **Chiou, S.**, Kang, S. and Yan, J. (2015) “Semiparametric accelerate failure time modeling for clustered failure times from stratified sampling.” *Journal of American Statistical Association*, 110 (510): 621–629.
43. **Chiou, S.**, Kang, S. and Yan, J. (2014) “Fitting accelerated failure time model in routine survival analysis with R Package aftgee.” *Journal of Statistical Software*, 61 (11): 1–23.
44. **Chiou, S.**, Kang, S. , Kim, J. and Yan, J. (2014) “Marginal semiparametric multivariate accelerated failure time model with generalized estimating equation.” *Lifetime Data Analysis*, 20 (4): 599–618.
45. **Chiou, S.**, Kang, S. and Yan, J. (2014) “Fast accelerated failure time modeling for case-cohort data.” *Statistics and Computing*, 24 (4): 559–568.

#### INVITED BOOK CHAPTERS

1. Vaughan, G., Aseltine, R., **Chiou, S.**, and Yan, J. (2016) “An alarm system for flu outbreaks using Google Flu Trend Data.” *Statistical Applications from Clinical Trials and Personalized Medicine to Finance and Business Analytics*, pp. 293–304, Springer International Publishing.
2. **Chiou, S.**, Kang, S., and Yan, J. (2015) “Disappearance of 0.400 hitters: A change point extreme value analysis of top baseball batting average.” *Extreme Value Modeling and Risk Analysis: Methods and Applications*, pp. 493-504, CRC Press.

#### SOFTWARE

- aftgee** “Accelerated failure time model with generalized estimating equations”  
<https://cran.r-project.org/web/packages/aftgee/index.html>
- censCov** “Linear regression with a randomly censored covariate”  
<https://cran.r-project.org/web/packages/censCov/index.html>
- permDep** “Permutation based test for quasi-independence”  
<https://cran.r-project.org/web/packages/permDep/index.html>
- reda** “Recurrent event data analysis”  
<https://cran.r-project.org/web/packages/reda/index.html>
- reda** “Recurrent event data analysis”  
<https://cran.r-project.org/web/packages/reda/index.html>
- reReg** “Recurrent event regression”  
<https://cran.r-project.org/web/packages/reReg/index.html>
- rocTree** “Receiver Operating Characteristic (ROC)-guided survival trees and forests”

<https://cran.r-project.org/web/packages/rocTree/index.html>

**qris** “Quantile regression model for residual lifetime using an induced smoothing approach”

<https://cran.r-project.org/web/packages/qris/index.html>

**spef** “Functions for fitting semiparametric regression models for panel count survival data”

<https://cran.r-project.org/web/packages/spef/index.html>

**tranSurv** “Transformation model estimation of survival under dependent truncation and independent censoring”

<https://cran.r-project.org/web/packages/tranSurv/index.html>

EDITORIAL SERVICES	<i>Japanese Journal of Statistics and Data Science</i>	
	Associate editor	2023 to present
	<i>American Journal of Physical Medicine &amp; Rehabilitation</i>	
	Research design & analysis editor	2023 to present
	<i>Journal of Data Science</i>	
	Associate editor	2020 to present
HONOR AND AWARD	The Association of College and University Educators (ACUE)	
	Certified faculty	2021
	International Statistical Institute	
	Elected Member	2019
	Harvard T.H. Chan School of Public Health	
	Kocaeli University School of Medicine International Travel Award	2016
	University of Minnesota Duluth	
	International Travel Grant	2014
	University of Connecticut	
	Doctoral Dissertation Fellowship	2013
TEACHING EXPERIENCE	Travel Award for Doctoral Students	2012
	International Chinese Statistical Association	
	Student Paper Award	2012
	Southern Methodist University	
	Stat 3304 Introduction to Statistical Computing	Fall 2024
	Stat 6350 Analysis of Lifetime Data	Spring 2024
	Stat 6324 Computational Statistics	Fall 2023, 2024
	The University of Texas at Dallas	
	Stat 6341 Numerical Linear Algebra and Statistical Computing	Fall 2019 – 22
	Stat 6339 Linear Regression Model	Spring 2019
	Stat 6390 Special Topic in Statistics: Analysis of Survival Data	Fall 2018
	Stat 5353 Probability and Statistics for Data Science and Bioinformatics	Spring 2018 – 23
	Stat 4354 Numerical and Statistical Computing	Spring 2020 – 23, Fall 22
	Stat 2332 Introductory Statistics for Life Sciences	Fall 2017, 20, 21
	The University of Minnesota Duluth	
	Stat 4101 Actuarial Probability	Spring 2015
	Stat 4060 Introduction to Biostatistics	Spring 2014, Spring 2015
	Stat 3611 Introduction to Probability and Statistics	Fall 2013, 14, Spring 2015
	Stat 5531 Probability Models	Fall 2014

	Stat 1411 Introduction to Statistics	Summer 2014
	University of Connecticut	
	Stat 315 Introduction to Mathematical Statistics	Fall 2011, 12
	Stat 110 Elementary Concepts of Statistics	Summer 2011
	Stat 110 Elementary Concepts of Statistics (as teaching assistant)	Fall 2008 – Fall 2011
SHORT COURSE	International Chinese Statistical Association Applied Statistics Symposium	
	Applied event time data analysis with R	June 2023
	New England Statistics Symposium	
	Applied event time data analysis with R	June 2022
	The ISI World Statistics Congresses	
	Recurrent event analysis in R with the <b>reReg</b> package	April 2021, 2022
	Virtual conference on data science in action (hosted by Shanxi University of Finance and economics)	
	Recurrent event analysis with the <b>reReg</b> and <b>reda</b>	July 2020
	Kocaeli University School of Medicine, Turkey	
	Introduction to survival analysis methods in R (guest lecturer)	May 2016
INVITED TALKS	Invited presentations at seminar/colloquium	
	The Institute of Statistical Mathematics, Tokyo, Japan	July 2024
	University of Texas at Dallas, Department of Mathematical Sciences	March 2023
	Southern Methodist University, Department of Statistical Sciences	January 2023
	University of Haifa, Department of Statistics	March 2021
	Johns Hopkins University, Department of Biostatistics	December 2020
	Baylor University, Department of Statistics	March 2019
	Southern Methodist University, Department of Statistical Sciences	February 2019
	Invited presentations at professional meetings	
	International ERCIM Working Group on Computational and Methodological Statistics	December 2023
	Joint Statistical Meetings	August 2023
	New England Statistics Symposium	June 2023
	Lifetime Data Science Conference	May 2023
	International Chinese Statistical Association Applied Statistics Symposium	September 2021
	Conference on Data Science in Action	June 2020
	International Chinese Statistical Association China Conference	July 2019
	International Conference on Econometrics and Statistics	June 2019
	New England Statistical Society 2019: Statistical Data Science in Action	May 2019
	Coastal Bend Mathematics and Statistics Conference	March 2019
	International ERCIM Working Group on Computational and Methodological Statistics	December 2018
	International Conference on Advances in Interdisciplinary Statistics and Combinatorics	October 2018
	International Indian Statistical Association Conference	May 2018
	International ERCIM Working Group on Computational and Methodological Statistics	December 2017
	International Chinese Statistical Association Canada Chapter	August 2017
SOA EXAM	Society of Actuaries: Exam P, FM, MLC passed.	
SERVICE	North Texas Chapter of the American Statistical Association	
	Treasurer	August 2024 – Present
	Secretary and Treasurer	January 2023 – August 2024
	President	August 2019 – December 2022
	Vice President	August 2018 – May 2019
	The University of Texas at Dallas	

Faculty adviser for UTD Go Association	February 2018 – Present
Faculty member for UTD Sustainability Committee	February 2018 – February 2019
Harvard T.H. Chan School of Public Health	
Coordinator for Neurostatistics Working Group	August 2016 – July 2017
University of Minnesota Duluth	
Planning Committee for the Twin Port R User Group	August 2013 – May 2015
Actuary Club Adviser	Spring 2014 – Spring 2015
Review Committee for the Undergraduate Research Opportunities Projects	Spring 2014, Spring 2015
Mentor for Global One Health Case Competition	Spring 2014