

# Eric Slud

## **Educational Background**

- 1976, Ph.D, M.I.T
- 1972, B.A, Harvard College

## **Academic Appointments at UMD**

- 1989-Present, Mathematics Department, Professor
- 1983-1989, Mathematics Department, Associate Professor
- 1976-1983, Mathematics Department, Assistant Professor

## **Other Employment**

- 2011-present, Area Chief for Mathematical Statistics, Center for Statistical Research & Methodology, US Census Bureau

## **Professional Certifications and Licenses**

- 1985, Associate of the Society of Actuaries, (passed all 5 Assoc. level examinations)

## **Awards and Recognition**

- 2004, Fellow, American Statistical Association, awarded by American Statistical Association for cumulative accomplishments
- 2001, Fellow, Institute of Mathematical Statistics, awarded by Institute for Mathematical Statistics (professional society) for cumulative accomplishments

## **Journal Editorial Service**

- Associate Editor, Statistical Theory & Related Fields, 2017-present
- Associate Editor, Biometrika, (May 2014- Aug. 2018)
- Associate Editor, Journal of Survey Statistics and Methodology, (Jan. 2014-present)
- Associate Editor, Journal of Royal Statist. Soc., Series B, 2003-2007 and 2009-2014
- 2001, Associate Editor, Lifetime Data Analysis, (Jan. 2001-present)

## **Selected Research Papers**

### **Sampling Theory**

1. C. Franco, R. Little, T. Louis and E. Slud, Comparative Study of Confidence Intervals for Proportions in Complex Sample Surveys, *Journal of Survey Statistics and Methodology* (2019) 7, 334-364.
2. Y. Thibaudeau, E. Slud and A. Gottschalck, Modeling log-linear conditional probabilities for estimation in surveys, *Annals of Applied Statistics* 11 (2017), 680-697.
3. J. Shao, E. Slud, Y. Cheng, S. Wang and C. Hogue, Theoretical and empirical properties of model assisted decision-based regression estimators, *Survey Methodol.* 40 (2014), 81-104.
4. E. Slud and T. Maiti, Small-area estimation of survey data from a left-censored Fay-Herriot model, *Journal of Statistical Planning & Inference* 141 (2011), 3520-3535
5. E. Slud and T. Maiti, Mean-squared error estimation in transformed Fay-Herriot models, *Journal of the Royal Statistical Society Series B (Methodological)* 68 (2006), 239-257.

### **Survival Analysis & Estimating Equations**

6. X. Yao and E. Slud, Nonexistence of an unbiased estimating function for the Cox model, *Statistics and Probability Letters* (2019) 152, 122-127.
7. E. Slud, I. Vonta and A. Kagan, Combining Estimators of a Common Parameter Across Samples, *Statistical Theory and Related Fields* (2018) 2:2, 158-171, DOI10.180/24754269.2018.1530903
8. E. Slud and F. Vonta, Consistency of the NPML estimator in the right-censored transformation model, *Scandinavian Journal of Statistics* 31 (2004), 21-41.
9. F. Kong and E. Slud, Robust covariate adjusted logrank tests, *Biometrika* 84 (1997), 847-62.
10. E. Slud, Analysis of factorial survival experiments, *Biometrics* 50 (1994), 25-38
11. E. Slud, Relative efficiency of the logrank test within a multiplicative intensity model, *Biometrika* 78 (1991), 621-30.
12. E. Slud, Sequential linear rank tests for two-sample censored survival data. *Annals of Statistics* 12 (1984), 551-571
13. E. Slud and L. Rubinstein, Dependent competing risks and summary survival curves, *Biometrika* 70 (1983), 643-649
14. E. Slud and L.-J. Wei, Two-sample repeated significance tests based on the modified Wilcoxon statistic, *Journal of the American Statistical Assoc.* 77 (1982), 862-868.

### **General Mathematical Statistics**

15. V. de Oliveira, B. Wang and E. Slud, Spatial modeling of rainfall accumulated over short periods of time, *Journal of Multivariate Analysis* (2018), 166, 129-149
16. M. Tang, E. Slud and R. Pfeiffer, Goodness of fit tests for linear mixed models, *Journal of Multivariate Analysis* 130 (2014), 176-193
17. E. Slud and F. Vonta, Efficient semiparametric estimators via modified profile likelihood, *Journal of Statistical Planning & Inference* 129 (2005), 339-367
18. E. Slud and B. Kedem, Partial likelihood analysis of logistic regression and autoregression, *Statistica Sinica* 4 (1994), 89-106
19. I. Fakhre-Zakeri and E. Slud, Optimal stopping of sequential size-dependent search, *Annals of Statistics*, 24 (1996), 2215-32.
20. A. Koutsoukos and E. Slud, Inaccuracy rates and Hodges-Lehmann large deviation rates for parametric inference with nuisance parameters, *Journal of Statistical Planning & Inference* 48 (1995), 47-68
21. E. Slud, Partial likelihood for continuous-time stochastic processes, *Scandinavian Journal of Statistics* 19 (1992), 97-110
22. B. Kedem and E. Slud, Time series discrimination by higher order crossings, *Annals of Statistics* 10 (1982), 786-794.

### **Probability**

23. D. Chambers and E. Slud, Mixing for stationary processes with finite-order Multiple Wiener-Ito integral representation, *Ergodic Theory & Dynam. Sys.* 16 (1996), 1087-1100.
24. E. Slud, Multiple stochastic integral representation of the number of curve crossings by a differentiable Gaussian process, with applications. *Annals of Probab.* 22 (1994) 1355-80
25. E. Slud, The moment problem for polynomial forms in normal random variables, *Annals of Probability* 21 (1993), 2200-14.
26. E. Slud, Multiple Wiener-Ito integral expansions for level-crossing-count functionals, *Probability Theory and Related Fields* 87 (1991), 349-364
27. D. Chambers and E. Slud, Central limit theorems for nonlinear functionals of stationary Gaussian processes, *Probability Theory and Related Fields*, 80 (1989), 323-346
28. E. Slud, Clipped Gaussian processes are never m-step Markov. *Journal of Multivariate Analysis* 29 (1989), 1-14
29. E. Slud, Stability of exponential rate of growth of products of random matrices under local random perturbations. *Journal of the London Mathematical Society* (1986) 33, 180-192
30. E. Slud, Distribution inequalities for the binomial law, *Annals of Probability* 5 (1977), 404-412.

### **Miscellaneous Applications**

31. M.S. Kumar, E. Slud, K. Okrah, S. Hicks, S. Hannenhali and H.C. Bravo, Analysis and correction of compositional bias in sparse sequencing count data, *BMC Genomics* (2018) 19:799-821.
32. R. Ashmead, E. Slud and T. Hughes, Adaptive intervention methodology for reduction of respondent contact burden in the American Community Survey, *Journal of Official Statistics* 33 (2017), 901-919.
33. M. Shen, E. Russek-Cohen and E. Slud, Checking distributional assumptions for pharmacokinetic summary statistics based on simulations with compartmental models (2016), *Journal of Biopharmaceutical Statistics*, DOI:10.1080/10543406.2016.1222535
34. J. Silver, E. Slud and K. Takamoto, Statistical mechanics of wealths of many agents with independent preferences in an ideal exchange economy, *Journal of Economic Theory* 106 (2002), 417-435.
35. E. Slud, M. Stone, P. Smith and M. Goldstein Jr., Principal components representation of the two-dimensional coronal tongue surface, *Phonetica* 59 (2002), 108-33.
36. I. Fakhre-Zakeri and E. Slud, Mixture models for reliability of software with imperfect debugging: identifiability of parameters, *IEEE Transac. on Reliability* 44 (1995), 104-113.
37. P. Lakner and E. Slud, Optimal consumption by a bond investor: the case of random interest rate adapted to a point process, *SIAM Journal of Optimization & Control*, 29 (1991), 638-655
38. E. Slud and C. Hoesman, Moderate- and large-deviation probabilities in actuarial risk theory (with C. Hoesman). *Advances in Applied Probability* 21 (1989), 725-741.

### **Selected Census Bureau Technical Reports**

- 2016, Hughes, T., E. Slud, R. Ashmead, and R. Walsh. 2016. "Results of a Field Pilot to Reduce Respondent Contact Burden in the American Community Survey's Computer Assisted Personal Interviewing Operation. American Community Survey Research and Evaluation Report Memorandum Series #ACS16-RER-07.
- 2015, E. Slud, Impact of Mode-based Imputation on ACS Estimates, American Community Survey Research and Evaluation Report
- 2015, D. Griffin, E. Slud and C. Erdman, Reducing Respondent Burden in the American Community Survey's Computer Assisted Personal Visit Interviewing Operation - Phase 3 Results, American Community Survey Research and Evaluation Report
- 2014, D. Griffin, E. Slud and C. Erdman, Reducing Respondent Burden in the American Community Survey's Computer Assisted Personal Visit Interviewing Operation – Phase 3 Results, American Community Survey Research and Evaluation Report Series, American Community Survey Office, U.S. Census Bureau, (#ACS14-RER-28)
- 2010, E. Slud and Y. Thibaudeau, Simultaneous Calibration and Nonresponse Adjustment, Census Bureau CSRM Research Report, Statistics # 3

## **Research Advising**

1. Spring 2018, Eun-Young Jessie Moon, PhD (co-advised with Dr. Shuo Chen of EPIB)
2. Spring 2018, Xuan Yao, PhD
3. Spring 2018, Xia Li, PhD
4. Fall 2016, Peter Rankel, PhD (co-advised with Dr. John Conroy of IDA)
5. Summer 2015, Meiyu Shen, PhD (co-advised with Dr. Estelle Russek-Cohen, FDA)
6. Fall 2013, Ekaterina Sotiris, PhD (co-advised with Dr. William Bell, US Census Bureau)
7. Summer 2012, Jiraphan Suntornchost, PhD
8. Fall 2011, Vasilis Sotiris, PhD (co-advised with Dr. M. Pecht of ENME at UMD)
9. Fall 2010, Ziliang Li, PhD
10. Summer 2010, Min Tang, PhD (co-advised with Dr. R. Pfeiffer of NCI)
11. Fall 2009, Mathewos DeMissie, MA
12. Fall 2009, John Kuykendall, MA
13. Spring 2008, Chin-Fang Weng, MA
14. Spring 2008, Yabing Mai, PhD
15. Fall 2007, Ganesh Nadarajasundaram, PhD (co-advised with Dr. P. Lahiri of JPSM at UMD)
16. Fall 2007, Calandra Tate, PhD (co-advised with Dr. B. Dorr of CMSC at UMCP)
17. Fall 2005, Hsiao-Hui Tsou, PhD
18. Fall 2005, Ru Chen, PhD
19. Fall 2004, Yang Cheng, PhD
20. Fall 2000, Eric Leifer, PhD
21. Fall 2000, George Wright, PhD
22. Fall 1997, Leonid Kopylev, PhD
23. Fall 1996, Chun-Kuo Li, MA
24. Fall 1993, Jesse Chittams, MA
25. Spring 1993, Brian Morrow, MA
26. Fall 1992, Filia Vonta, PhD
27. Spring 1991, Marsha Reichman, MA
28. Fall 1990, Antonis Koutsoukos, PhD
29. Fall 1987, Craig Hoesman, MA
30. Fall 1983, Daniel Chambers, PhD