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Department of Biostatistics
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RESEARCH INTERESTS

Bayesian adaptive designs
Clinical trials and cancer research
Survival analysis

COMPUTER SKILLS

C, C++, FORTRAN, SAS, Splus, R, Matlab, BUGS, East, PASS,
nQuery

PROFESSIONAL MEMBERSHIP

American Statistical Association (ASA)
Eastern North American Region of the Biometric Society (ENAR)
International Society for Bayesian Analysis (ISBA)
Institute of Mathematical Statistics (IMS)
International Chinese Statistical Association (on the Board of Directors
of ICSA)

PUBLICATIONS

Book

1. *Clinical Trial Design: Bayesian and Frequentist Adaptive Methods* to appear in December, 2011, published by John Wiley & Sons (Wiley Series in Probability and Statistics).

Statistical Methodologies

1. **Yin, G.**, Chen, N. and Lee, J. J. (2011). Phase II trial design with Bayesian adaptive randomization and predictive probability. *Journal of Royal Statistical Society C - Applied Statistics*, in press.
2. Diao, G. and **Yin, G.** (2011). A general transformation class of semiparametric cure rate frailty models. *Annals of the Institute of Statistical Mathematics*, in press.

3. Yuan, Y. and **Yin, G.** (2011). Robust EM continual reassessment method in oncology dose finding. *Journal of the American Statistical Association*, in press.
4. Garcia, T., Ma, Y. and **Yin, G.** (2011). Efficiency improvement in a class of survival models by incorporating auxiliary covariates. *Lifetime Data Analysis*, in press.
5. Yuan, Y. and **Yin, G.** (2011). On the usefulness of outcome-adaptive randomization. *Journal of Clinical Oncology* (with an impact factor of 18), **29**, e390–e392.
6. **Yin, G.**, Ma, Y., Liang, F. and Yuan, Y. (2011). Stochastic generalized method of moments. *Journal of Computational and Graphical Statistics*, in press.
7. Yuan, Y. and **Yin, G.** (2011). Dose-response curve estimation: A semiparametric mixture approach. *Biometrics*, in press.
8. Yuan, Y. and **Yin, G.** (2011). Bayesian hybrid dose-finding design in phase I oncology clinical trials. *Statistics in Medicine* **30**, 2098-2108.
9. Yuan, Y. and **Yin, G.** (2011). Phase I/II adaptively randomized oncology trials with combined drugs. *Annals of Applied Statistics* **5**, 924-942.
10. Ma, Y. and **Yin, G.** (2011). Censored quantile regression with covariate measurement errors. *Statistica Sinica* **21**, 949-971.
11. Lei, X., Yuan, Y. and **Yin, G.** (2011). Bayesian phase II clinical trial design with time-to-event adaptive randomization. *Lifetime Data Analysis* **17**, 156-174.
12. **Yin, G.** and Yuan, Y. (2010). Correspondence to the discussion of “Bayesian dose finding in oncology for drug combinations by copula regression.” *Journal of Royal Statistical Society C - Applied Statistics* **59**, 544-546.
13. Ma, Y. and **Yin, G.** (2010). Semiparametric median residual life model and inference. *Canadian Journal of Statistics* **34**, 665-679.
14. Yuan, Y. and **Yin, G.** (2010). Bayesian quantile regression for longitudinal studies with non-ignorable missing data. *Biometrics* **66**, 105-114.
15. **Yin, G.** and Yuan, Y. (2010). Bayesian approach for adaptive design. *Handbook of Adaptive Designs in Pharmaceutical and Clinical Development*, Chapter 3, Eds. Pong, A. and Chow, S.-C, Chapman & Hall, CRC Press.
16. **Yin, G.** and Nieto-Barajas, L. E. (2009). Bayesian cure rate model accommodating multiplicative and additive covariates. *Statistics and Its Interface* **2**, 513-521.
17. **Yin, G.** and Li, H. (2009). Least squares estimation of varying-coefficient hazard regression with application to breast cancer dose-intensity data. *The Canadian Journal of Statistics* **37**, 659-674.
18. **Yin, G.** and Yuan, Y. (2009). Bayesian model averaging continual reassessment method in phase I clinical trials. *Journal of the American Statistical Association* **104**, 954-968.
19. **Yin, G.** (2009). Bayesian generalized method of moments (with discussion). *Bayesian Analysis* **4**, 191-208; and Rejoinder, 217-222.

20. Yuan, Y. and **Yin, G.** (2009). Bayesian dose finding by jointly modeling toxicity and efficacy as time-to-event outcomes. *Journal of Royal Statistical Society C - Applied Statistics* **58**, 719-736.
21. Li, H. and **Yin, G.** (2009). Generalized method of moments for linear regression with clustered failure time data. *Biometrika* **96**, 293-306.
22. **Yin, G.** and Yuan, Y. (2009). Bayesian dose finding in oncology for drug combinations by copula regression. *Journal of Royal Statistical Society C - Applied Statistics* **58**, 211-224.
23. **Yin, G.** (2009). Bayesian chi-squared goodness-of-fit test for censored data. *Journal of Statistical Planning and Inference* **139**, 1474-1483.
24. **Yin, G.** and Yuan, Y. (2009). A latent contingency table approach to dose finding for combinations of two agents. *Biometrics* **65**, 866-875.
25. **Yin, G.** (2008). Bayesian transformation cure frailty models with multivariate failure time data. *Statistics in Medicine* **27**, 5929-5940.
26. Yuan, Y. and **Yin, G.** (2008). Sequential continual reassessment method for two-dimensional dose finding. *Statistics in Medicine* **27**, 5664-5678.
27. **Yin, G.**, Li, H. and Zeng, D. (2008). Partially linear additive hazards regression with varying coefficients. *Journal of the American Statistical Association* **103**, 1200-1213.
28. **Yin, G.**, Zeng, D. and Li, H. (2008). Power-transformed linear quantile regression with censored data. *Journal of the American Statistical Association* **103**, 1214-1224.
29. Ma, Y. and **Yin, G.** (2008). Cure rate model with mismeasured covariates under transformation. *Journal of the American Statistical Association* **103**, 743-756.
30. Nieto-Barajas, L. E. and **Yin, G.** (2008). Bayesian semiparametric cure rate model with an unknown threshold. *Scandinavian Journal of Statistics* **35**, 540-556.
31. Li, H., **Yin, G.** and Zhou, Y. (2007). Local likelihood with time-varying coefficient additive hazards model. *The Canadian Journal of Statistics* **35**, 321-337.
32. Ji, Y., **Yin, G.**, Tsui, K.-W., Kolonin, M. G., Sun, J., Arap, W., Pasqualini, R. and Do, K.-A. (2007). Bayesian mixture models for complex high-dimensional count data in phage display experiments. *Journal of Royal Statistical Society C - Applied Statistics* **56**, 1-14.
33. Cong, X., **Yin, G.** and Shen, Y. (2007). Marginal analysis of correlated failure time data with informative cluster sizes. *Biometrics* **63**, 663-672.
34. **Yin, G.** (2007). Model checking for additive hazards model with multivariate survival data. *Journal of Multivariate Analysis* **98**, 1018-1032.
35. Ji, Y., Li, Y. and **Yin, G.** (2007). Bayesian dose finding in phase I clinical trials based on a new statistical framework. *Statistica Sinica* **17**, 531-547.
36. **Yin, G.** and Ibrahim, J. (2006). Bayesian transformation hazard models. *The Second Lehmann Symposium - Optimality, IMS Lecture Notes - Monographs Series*, 170-182.

37. **Yin, G.**, Li, Y. and Ji, Y. (2006). Bayesian dose-finding in phase I/II trials using toxicity and efficacy odds ratio. *Biometrics* **62**, 777-784.
38. Zeng, D., **Yin, G.** and Ibrahim, J. (2006). Semiparametric transformation models for survival data with a cure fraction. *Journal of the American Statistical Association* **101**, 670-684.
39. **Yin, G.** and Zeng, D. (2006). Efficient algorithm for computing maximum likelihood estimates in linear transformation models. *Journal of Computational and Graphical Statistics* **15**, 228-245.
40. **Yin, G.** and Ibrahim, J. (2005). Cure rate models: a unified approach. *The Canadian Journal of Statistics* **33**, 559-570.
41. Zeng, D., **Yin, G.** and Ibrahim, J. (2005). Inference for a class of transformed hazard models. *Journal of the American Statistical Association* **100**, 1000-1008.
42. **Yin, G.** and Ibrahim, J. (2005). Bayesian frailty models based on Box-Cox transformed hazards. *Statistica Sinica* **15**, 781-794.
43. **Yin, G.** and Shen, Y. (2005). Self-designing trial combining with classical group sequential monitoring. *Journal of Biopharmaceutical Statistics* **15**, 667-675.
44. **Yin, G.** (2005). Bayesian cure rate frailty models with application to a root canal therapy study. *Biometrics* **61**, 552-558.
45. **Yin, G.** and Ibrahim, J. (2005). A general class of Bayesian survival models with zero and non-zero cure fractions. *Biometrics* **61**, 403-412.
46. **Yin, G.** and Shen, Y. (2005). Adaptive design and estimation in randomized clinical trials with correlated observations. *Biometrics* **61**, 362-369.
47. Zeng, D., Lin, D. Y. and **Yin, G.** (2005). Maximum likelihood estimation in proportional odds model with random effects. *Journal of the American Statistical Association* **100**, 470-483.
48. **Yin, G.** and Ibrahim, J. (2005). A class of Bayesian shared gamma frailty models with multivariate failure time data. *Biometrics* **61**, 209-217.
49. **Yin, G.** and Cai, J. (2005). Quantile regression models with multivariate failure time data. *Biometrics* **61**, 152-162.
50. **Yin, G.** and Zeng, D. (2005). Pair chart test for an early survival difference. *Lifetime Data Analysis* **11**, 117-129.
51. **Yin, G.** and Hu, J. (2004). Two simulation methods for constructing confidence bands under the additive risk model. *Journal of Biopharmaceutical Statistics* **14**, 389-402.
52. Hu, J., **Yin, G.**, Morris, J. S., Zhang, L. and Wright, A. F. (2004). Entropy and survival-based weights to combine Affymetrix array types and analyze differential expression and survival. *Methods of Microarray Data Analysis IV, Critical Assessment of Microarray Data Analysis*, eds. J. S. Shoemaker and S. M. Lin, pp. 95-108.

53. Morris, J. S., **Yin, G.**, Baggerly, K., Wu, C. and Zhang, L. (2004). Pooling information across different studies and oligonucleotide chip types to identify prognostic genes for lung cancer. *Methods of Microarray Data Analysis IV, Critical Assessment of Microarray Data Analysis*, eds. J. S. Shoemaker and S. M. Lin, pp. 51-66.
54. **Yin, G.** and Cai, J. (2004). Additive hazards model for multivariate failure time data. *Biometrika* **91**, 801-818.
55. Hu, J. and **Yin, G.** (2003). A semiparametric regression model for oligonucleotide arrays. *Journal of Modern Applied Statistical Methods* **2**, 256-267.
56. **Yin, G.**, Cai, J. and Kim, J. (2003). Quantile inference with multivariate failure time data. *Biometrical Journal* **45**, 602-617.

Biomedical Collaborations

57. Arun, B. K., Dhingra, K., Valero, V., Kau, S.-W., Broglio, K., Booser, D., Guerra, L., **Yin, G.**, Walters, R., Sahin, A., Ibrahim, N., Buzdar, A. U., Frye, D., Sneige, N., Strom, E., Ross, M., Theriault, R., Vadhan-Raj, S., Hortobagyi, G. N. (2010). Phase III randomized trial of dose intensive neoadjuvant chemotherapy with or without G-CSF in locally advanced breast cancer: long-term results.
58. Yuan, P., Kadara, H., Behrens, C., Tang, X., Woods, D., Solis, L. M., Huang, J., Spinola, M., Dong, W., **Yin, G.**, Fujimoto, J., Kim, E., Xie, Y., Girard, L., Moran, C., Hong, W. K., Minna, J. D. and Wistuba, I. I. (2010). Sex determining region Y-box 2 (SOX2) is a potential cell-lineage gene highly expressed in the pathogenesis of squamous cell carcinomas of the lung. *Plos ONE*, in press.
59. Richards, K. L., Zhang, B., Sun, M., Dong, W., Churchill, J., Bachinski, L. L., Wilson, C. D., Baggerly, K. A., **Yin, G.**, Hayes, D. N., Wistuba, I. I. and Krahe, R. (2010). Methylation of the candidate biomarker TCF21 is very frequent across a spectrum of early stage non-small cell lung cancers. *Cancer*, in press.
60. Massarelli, E., Prudkin, M. L., Ozburn, N., Feng, L., **Yin, G.**, Hong, W. K., O'Reilly, M., Herbst, R. S. and Wistuba, I. I. (2010). Correlation between VEGF/VEGFR2 and EGFR immunohistochemical protein expression in early stage non-small cell lung carcinoma.
61. Arun, B. K., Granville, L. A., **Yin, G.**, Middleton, L. P., Dawood, S., Shu, W.-K., Hsu, L., Hortobagyi, G. N. and Sahin, A. A. (2009). Glutathion-S-transferase-pi (GST-pi) expression in early breast cancer: associated with outcome and response to chemotherapy. *Cancer Investigation*, in press.
62. Sun, M., Behrens, C., Feng, L., Ozburn, N., Tang, X., **Yin, G.**, Komaki, R., Varella-Garcia, M., Hong, W. K., Aldape, K. D. and Wistuba, I. I. (2009). HER family receptor abnormalities in lung cancer brain metastases and corresponding primary tumors. *Clinical Cancer Research* **15**, 4829-37.

63. Rivera, E., Mejia, J., Arun, B., Adinin, R., Walters, R., Abenaa B., A., Broglio, K., **Yin, G.**, Hortobagyi, G. and Valero, V. (2008). Phase III study comparing the use of docetaxel on an every-three-week versus weekly schedule in the treatment of metastatic breast cancer. *Cancer* **112**, 1455-1461.
64. Arun, B., Valero, V., Logan, C., Broglio, K., Rivera, E., Brewster, A., **Yin, G.**, Green, M., Kuerer, H., Gong, Y., Browne, D., Hortobagyi, G. N. and Sneige, N. (2007). Comparison of ductal lavage and random periareolar fine needle aspiration as tissue acquisition methods in early breast cancer prevention trials. *Clinical Cancer Research* **13**, 4943-4948.
65. Gonzalez, R. J., Buzdar, A. U., Symmans, W. F., Yen, T. W., Broglio, K. R., Lucci, A., Esteva, F. J., **Yin, G.** and Kuerer, H. M. (2007). Novel clinical trial designs for treatment of ductal carcinoma in situ of the breast with trastuzumab (herceptin). *Breast Journal* **13**, 72-75.
66. Rivera, E., Meyers, C., Groves, M., Valero, V., Francis, D., Arun, B., Broglio, K., **Yin, G.**, Hortobagyi, G. N. and Buchholz, T. (2006). Phase I study of capecitabine in combination with temozolomide in the treatment of patients with brain metastases from breast carcinoma. *Cancer* **107**, 1348-1354.
67. Sneige, N., Liu, B., **Yin, G.** and Arun, B. K. (2006). Correlation of cytologic findings and chromosomal instability detected by fluorescence in situ hybridization in breast fine-needle aspiration specimens from women at high risk for breast cancer. *Modern Pathology* **19**, 622-629.
68. Klos, K. S., Sun, M., Tan, M., Zhou, X., Li, P., Yang, W., **Yin, G.** and Yu, D. (2006). ErbB2 increases VEGF protein synthesis via activation of the mTOR/p70S6K pathway leading to increased angiogenesis and spontaneous metastasis of human breast cancer cells. *Cancer Research* **66**, 2028-2037.
69. Tan, M., Li, P., Sun, M., **Yin, G.** and Yu, D. (2006). Upregulation and activation of PKC α by ErbB2 through Src promotes breast cancer cell invasion that can be blocked by combined treatment with PKC α and Src inhibitors. *Oncogene* **25**, 3286-3295.
70. Hanrahan, E. O., Broglio, K. R., Buzdar, A. U., Theriault, R. L., Valero, V., Cristofanilli, M., **Yin, G.**, Kau, S.-W., Hortobagyi, G. N. and Rivera, E. (2005). Combined-modality treatment for isolated recurrences of breast carcinoma. *Cancer* **104**, 1158-1171.
71. Caplan, D., Cai, J., **Yin, G.** and White, A. (2005). Root canal filled versus non-root canal filled teeth: a retrospective comparison of survival times. *Journal of Public Health Dentistry* **65**, 90-96.