

Lynn Lin

CONTACT INFORMATION

422A Thomas Building
The Pennsylvania State University
University Park, PA 16802 USA

Voice: (814)863-8677
E-mail: llin@psu.edu
WWW: <http://www.personal.psu.edu/lul37/>

RESEARCH INTERESTS

Bayesian statistics, nonparametric Bayesian, machine learning, hierarchical model, Bayesian model selection, large-scale data analysis, single-cell assays, vaccine clinical trials, immunology and infectious disease

EDUCATION

Duke University, Durham, North Carolina, USA

Ph.D., Statistics, July 2012

- Dissertation Topic: “Bayesian variable selection in clustering and hierarchical mixture modeling”
- Advisor: Dr. Mike West

National University of Singapore, Singapore

M.Sc., Statistics, July 2008

B.Sc., First Class Honors, Statistics, July 2007

- Minor: Economics

ACADEMIC EXPERIENCE

The Pennsylvania State University, University Park, PA USA

Assistant Professor of Statistics

August 2015 - present

Fred Hutchinson Cancer Research Center, Seattle, Washington USA

Postdoctoral Fellow

August 2012 - 2015

- with Dr. Raphael Gottardo
- under Vaccine and Infectious Disease Division
- research in Bayesian statistics and statistical computation, applied to single-cell assays and immunological studies

PUBLICATIONS & MANUSCRIPTS (publish under the name Lin Lin)

Seshadri, C., **Lin, L.**, Scriba, T.J., Peterson, G., Freidrich, D., Frahm, N., DeRosa, S., Moody, D.B., Gilleron, M., Mathomed, H., Datta, S., Finak, G., Hanekom, W.A., Gottardo, R., McElrath, M.J., and Hawn, T.R. “T-cell responses against mycobacterial lipids and proteins are poorly correlated in South African adolescents.” *The Journal of Immunology*, in press.

Lin, L., Finak, G., Ushey, K., Seshadri, C., Hawn, T.R., Frahm, N., Scriba, T.J., Mahomed, H., Hanekom, W., Bart, P.A., Pantaleo, G., Tomaras, G.D., Rerks-Ngarm, S., Kaewkungwal, J., Nitayaphan, S., Pitisuttithum, P., Michael, N.L., Kim, J.H., Robb, M.L., O’Connell, R.J., Karasavvas, N., Gilbert, P., DeRosa, S., McElrath, M.J., and Gottardo, R. “COMPASS identifies T-cell subsets correlated with clinical outcomes”, *Nature Biotechnology* 33, 610-616, 2015.

Lin, L., Frelinger, J., Jiang, M., Finak, G., Bart, P.A., Pantaleo, G., McElrath, M.J., DeRose, S., and Gottardo, R. “Identification and visualization of multidimensional antigen-specific T-cell populations in polychromatic cytometry data.” *Cytometry A*, doi:10.1002/cyto.a.22623, 2015.

Lin, L., Chan, C., and West, M. “Discriminative variable subsets in Bayesian classification with mixture models, with application in flow cytometry studies.” *Biostatistics*, doi: 10.1093/biostatistics/kxv021, 2015.

Lin, L., Chan, C., Hadrup, S.R., Froesig, T.M., Wang, Q., and West, M. “Hierarchical Bayesian mixture modelling for antigen-specific T-cell subtyping in combinatorially encoded flow cytometry studies.” *Statistical Applications in Genetics and Molecular Biology* 12, 309-331, 2013.

Cron, A.J., Gouttefangeas, C., Frelinger, J., **Lin, L.**, Singh, S.K., Britten, C.M., Welters, M.J.P., van der Burg, S.H., West, M., and Chan, C. “Hierarchical modeling for rare event detection and cell subset alignment across flow cytometry samples.” *PLoS Computational Biology*, 9(7), p. e1003130, 2013.

Gan, F.F., **Lin, L.**, and Loke, C.K. “Risk-adjusted cumulative sum charting procedures.” *Frontiers in Statistical Quality Control 10*, edited by H J Lenza, P Th Wilrich and W Schmid, Berlin-Heidelberg, Germany: Springer Verlag, 2012.

Chan, C., **Lin, L.**, Frelinger, J., Hebert, V., Gagnon, D., Landry, C., Sekaly, R.P., Enzor, J., Staats, J., Weinhold, K.J., Jaimes, M., and West, M. “Optimization of a highly standardized carboxyfluorescein succinimidyl ester flow cytometry panel and gating strategy design with discriminative information measure evaluation.” *Cytometry A* 77, 1126-1136, 2010.

CONFERENCE
PRESENTATIONS
(* = INVITED)

Joint Statistical Meetings, August 2014, Boston, Massachusetts.

International Indian Statistical Association (IISA) conference, July 2014, Riverside, California.*

Joint Statistical Meetings, August 2013, Montreal, Canada.

Joint Statistical Meetings, July 2011, Miami, Florida*.

Valencia International Meetings on Bayesian Statistics, June 2010, Benidorm, Spain.

COMPUTER SKILLS

- Extensive use of Matlab and R.
- R package: COMPASS available on Bioconductor.
- Algorithms: Experience programming various Markov Chain Monte Carlo simulations of Bayesian posterior distributions, Bayesian optimization methods.

PROFESSIONAL
SERVICE

Peer Review for *Biostatistics*, *BMC Bioinformatics*, *Biometrics*, *Bayesian Analysis*, *Journal of the Royal Statistical Society*.

Book Proposal Review for Wiley.

Session on Bayesian Model Selection
Chair

IISA conference
July 2014, Riverside, California

Session on Bayesian Theory and Methods
Chair

Joint Statistical Meetings
August 2013, Montreal, Canada

PROFESSIONAL
MEMBERSHIP

American Statistical Association

International Society for Bayesian Analysis
Institute of Mathematical Statistics