

## Sean Chang

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| CONTACT INFORMATION               | Ph.D. Candidate<br>Department of Statistical Science<br>Duke University, Box 90251<br>Durham, NC 27708-0251, U.S.A.   | <i>Citizenship:</i> U.S. Permanent Resident<br><i>Mobile:</i> (609) 375-8415<br><i>Email:</i> <a href="mailto:sean.chang@duke.edu">sean.chang@duke.edu</a><br><i>Website:</i> <a href="https://www.linkedin.com/in/seanschang">linkedin.com/in/seanschang</a> |
| EDUCATION                         | <b>Ph.D.</b> , Statistical Science; <b>Duke University</b> , Durham, NC, U.S.A. Est. 2015<br>Field: Bayesian Statistics. Advisor: Prof. Jim Berger<br><b>M.A.</b> , Mathematics <b>Duke University</b> , Durham, NC, U.S.A. 2011-2013<br>Field: Probability. Qualifying exam committee: Prof. Richard Durrett<br><b>B.S.</b> , Mathematics, <b>National Taiwan University</b> , Taipei, Taiwan 2006-2010  |   |
| EXPERTISE                         | <ul style="list-style-type: none"><li>• <i>Statistics:</i> Data mining, Machine Learning, Bayesian Nonparametrics, Markov Chain Monte Carlo, Stochastic Simulations, Map-Reduce</li><li>• <i>Mathematics:</i> Quantitative Finance, Stochastic Calculus, Stochastic Processes, Probability Theory, Partial Differential Equations</li><li>• <i>Languages:</i> Python, C++, Matlab, R (JAGS, ggplot2), SQL, Scalding, Linux, <math>\LaTeX</math></li></ul>   |   |
| EXPERIENCE                        | <b>Statistical and Applied Mathematical Science Institute (SAMSI)</b> , NC Summer 2013 <ul style="list-style-type: none"><li>• <i>Modern Statistical &amp; Computational Methods for Analysis of Kepler Data:</i> A 3-week workshop with statisticians, NASA scientists and astronomers leading by Prof. Eric Ford on developing new analysis techniques of high dimensional exoplanet data from Kepler mission.</li><li>• <i>Industrial Mathematical &amp; Statistical Modeling Workshop:</i> Modeling trends and incidence rates of Sexually Transmitted Diseases in the US with Bayesian hierarchical model and spatial statistics, supervised by Dr. Howard Chang (Emory) and Dr. Simone Gray (CDC).</li><li>• <i>Low-dimensional Structure in High-dimensional Systems summer school:</i> Investigated recent advancements of analyzing big data and complicated structures in the fields of machine learning and genetic association studies.</li></ul> <b>Department of Mathematics, Duke University</b> , Durham, NC Fall 2012 <ul style="list-style-type: none"><li>• <i>Instructor:</i> Taught Math111L (Calculus), managed the work of teaching assistants and a grader, received good course evaluations with overall score of 4.0/5.0.</li></ul> |   |
| PUBLICATIONS AND WORK IN PROGRESS | <ul style="list-style-type: none"><li>• (With J. Berger) "Comparison of Bayesian and frequentist multiplicity correction under a scenario of data dependence", submitted to <i>the Annals of Statistics</i>.</li><li>• (With A. Brouwer, et al.) "Burden of Chlamydia in the United States: Trend Analysis of Incidence Rates" Nineteenth Mathematical and Statistical Modeling Final Report, p.77-109. 2013.</li><li>• (With J. Berger) "Bayesian multiple testing in sequential clinical trials". In revision.</li><li>• (With DB. Dunson) "Sparse factor model with the application in ecology". In preparation.</li><li>• (With B. Engelhardt) "Bayesian structured model in Multiple Tissue eQTL Analysis".</li></ul>  |   |
| AWARDS AND HONORS                 | <i>Dean's Award</i> , National Taiwan University 2009-2010<br><i>Study Abroad Scholarship</i> , Ministry of Education, Taiwan 2011-2012<br><i>Duke Reader Project</i> , Duke University 2013 Fall<br><i>SAS Statistics Fellow</i> , SAS Institute Inc. (offered but declined) 2014 May  |   |
| EXTRA-CURRICULAR ACTIVITIES       | <i>Community outreach</i> , Brogden Middle School, Durham, NC 2014-present<br>Member of <i>International Society for Bayesian Analysis (ISBA)</i> 2013-present<br><i>Statistical Science Journal Club</i> , Duke University 2013-present<br><i>Varsity Table Tennis Team</i> , National Taiwan University 2006-2008   |   |