

## CURRICULUM VITAE

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| <u>Education:</u>               | <u>Degree</u> | <u>Field</u>                 | <u>Year</u> | <u>GPA</u>              |
|---------------------------------|---------------|------------------------------|-------------|-------------------------|
| University of California, Davis | Ph.D.         | Statistics                   | 2011        | 3.91                    |
| San Francisco State University  | M.A.          | Mathematics                  | 2004        | 3.84                    |
| San Francisco State University  | Credential    | Secondary Education          | 1986        | 3.89                    |
| San Francisco State University  | B.A.          | Mathematics<br>Physics minor | 1985        | 3.68<br>Magna Cum Laude |

**Graduate Statistics Coursework:** Mathematical Statistics, Applied Statistics, Probability Theory, Multivariate Analysis, Time Series Analysis, Longitudinal Data Analysis, Generalized Linear Models, Survival Analysis, Statistical Computing, Statistical Consulting, Bootstrap Theory

**Graduate Mathematics Coursework:** Real and Complex Analysis, Functional Analysis, Abstract Algebra, Topology, Linear Algebra

**Research Experience:** Multivariate time series, Random networks, Network reliability, Optimization algorithms, Measurement error models, Clustering algorithms, Nonlinear ranking. Applications of statistics in primate social hierarchies, psychology and neuroscience.

**Dissertation Title:** “Topics on associations among random processes”

### **Professional Employment:**

- 2013– Amsterdam University College, Academic Core Faculty, Amsterdam, The Netherlands  
Lecturer in mathematics and statistics, academic tutor, admissions committee
- 2011–2013 Department of Mathematics, Faculty of Sciences, VU Amsterdam, The Netherlands  
Post-doctoral researcher in the Statistics for Life Sciences group; Lecturer in statistics and visiting lecturer in statistics and mathematics at Amsterdam University College
- 2005–2011 Department of Statistics, University of California, Davis, California
- Associate Instructor (Probability for Engineers), 2008
  - Teaching Assistant (Survival Analysis, Probability Theory, Regression Analysis, Statistics for the Social Sciences, Methods of Teaching Statistics), 2005–2010
  - Graduate Student Researcher, 2008–2011
  - LaTeX manuscript typesetter for academic books and papers, 2006–2011
- 2003–2011 Pearson Evaluation Systems, Sacramento, California  
Scorer / Chief Scorer, California Subject Examination for Teachers (Mathematics)
- 2001–2008 San Francisco State University, San Francisco, California  
Instructor (Intermediate Algebra, Introduction to Statistics, Pre-Calculus, Calculus, General Physics), 2001–2008; Mathematics and Physics Tutor, 2001–2005

### **Technical Skills:**

- Statistical software: high proficiency in R and SPSS; limited proficiency in SAS, Matlab and Java
- Typesetting: high proficiency in LaTeX, Microsoft Word, Excel & PowerPoint

### **Publications:**

McAssey, MP, Hsieh, F and Ferrer, E (2010) “Optimal and robust design for efficient system-wide synchronization in networks of randomly-wired neuron-nodes.” *Statistics and Its Interface*, vol. 3, no. 2, pp.159–168, International Press.

McAssey, MP, Hsieh, F and Smith, A (2010) “Coupling among electroencephalogram gamma signals on a short time scale.” *Computational Intelligence and Neuroscience*, vol. 2010, Article ID 946089, 12 pages, Hindawi Publishing Corp. DOI:10.1155 / 2010 / 946089

McAssey, MP and Hsieh, F (2010) “Slope estimation in structural line-segment heteroscedastic measurement error models.” *Statistics in Medicine*, vol. 29, no. 25, pp. 2631–2642, John Wiley and Sons. DOI 10.1002 / sim.4030

Hsieh, F and McAssey, MP (2010) “Time, temperature and data cloud geometry.” *Physical Review E*, vol. 82, 10 pages, American Physical Society. DOI: 10.1103/PhysRevE.82.061110

Hsieh, F, McAssey, MP, Beisner, B and McCowan, B (2011) “Ranking Network of a Captive Rhesus Macaque Society: A Sophisticated Corporative Kingdom.” *PLoS ONE* vol. 6, no. 3, e17817. DOI:10.1371 / journal.pone.0017817.

McAssey, MP and Hsieh, F (2011) “A Dynamic Test for Misspecification of a Linear Model.” In Jiang, J, Roussas, GG and Samaniego, FJ (Eds.) *Nonparametric Statistical Methods and Related Topics: Festschrift in Honor of Professor P.K. Bhattacharya on the Occasion of his 80<sup>th</sup> Birthday*, World Scientific. ISBN: 978-981-4366-56-4

Hsieh, F, McAssey, MP and McCowan, B (2011) “Computing a ranking network with confidence bounds from a graph-based Beta random field.” *Proceedings of the Royal Society A*, vol. 467, no. 2136, pp.3590-3612, DOI: 10.1098/rspa.2011.0268.

McAssey, M P, Helm, J, Hsieh, F, Sbarra, D and Ferrer, E (2011) “Methodological Advances for Detecting Physiological Synchrony During Dyadic Interactions.” *Methodology*. DOI: 10.1027/1614-2241/a000053.

McAssey, MP and Samaniego, FJ (2011) “Network Reliability: A Fresh Look at Some Basic Questions.” *Proceedings: The 15th Army Conference on Applied Statistics*, MD: Aberdeen Proving Ground.

Hollander, M, McAssey, MP and Samaniego, FJ (2013) “A Signature-based Approach to Comparisons among Multiple Systems.” *Journal of the Indian Statistical Association*, vol.51, no.1, pp.83-104.

McAssey, MP (2013) “An empirical goodness-of-fit test for multivariate distributions.” *Journal of Applied Statistics*, vol.40, no.5, pp.1120-1131. DOI:10.1080/02664763.2013.780160

McAssey, MP and Samaniego, FJ (2013) “On universally optimal networks: a reversal of fortune?” *Communications in Statistics – Theory and Methods*, vol.43, issue 10-12, pp.2453-2467. DOI: 10.1080/03610926.2013.792353.

McAssey, MP, Bijma, F, Tarigan, B, van Pelt, J, van Ooyen, A and de Gunst, MCM (2014) “A morpho-density approach to estimating neural connectivity.” *PLoS ONE*, vol.9, no.1, e86526. DOI: 10.1371/journal.pone.0086526.

McAssey, MP and Bijma, F (2014) “A clustering coefficient for complete weighted networks.” *Network Science*. In press.

### **Invited Talks and Poster Presentations:**

“Identifying instants of coherence among subsets of gamma rhythms in the mammal brain.”  
Symposium of the Graduate Groups in Epidemiology and Biostatistics, UC Davis (March 2009)

“System-wide synchronization in deterministic networks.” Annual Meeting, UC Davis Society for Industrial and Applied Mathematics (SIAM) Club, UC Davis (May 2009)

“Slope estimation in structural line-segment heteroscedastic measurement error models.” Statistics Department Seminar, University of California, Davis (February 2010)

“Coupling among electroencephalogram (EEG) gamma signals on a short time scale.” Institute on Research and Statistics, Sacramento Statistical Association; California State University, Sacramento (April 2010)

“System-wide synchronization in deterministic networks.” Quantitative Psychology Brown-Bag Seminar, Department of Psychology, UC Davis (April 2010)

“Statistics for neuronal network formation.” Statistics for Life Sciences Seminar, Department of Mathematics, Vrije Universiteit Amsterdam (September 2011)

“Spectral data clustering using a regulated random walk.” Mathematics Department Colloquium, Vrije Universiteit Amsterdam (March 2012)

“Toward a Morpho-Density Approach to Estimating Neural Connectivity.” Poster presented at International Statistical Institute World Congress in Istanbul, Turkey (July 2012)

### **University Activities:**

- Statistics Department Representative, Graduate Student Association, University of California, Davis, 2006 - 2008
- Statistics Department Representative, UAW Local 2865 (Academic Student Employees), University of California, Davis, 2006 - 2010
- Volunteer Instructor, Course on LaTeX Fundamentals, University of California, Davis, 2008

### **Awards:**

- Sacramento Statistical Association 2010 Student Award, presented April 1, 2010.
- UC Davis Mathematical and Physical Sciences Dean’s Graduate Student Prize in the College of Letters and Science, June 10, 2010.