OSCAR HERNAN MADRID PADILLA

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EMPLOYMENT

Neyman Visiting Assistant Professor
University of California–Berkeley   July 2017–Present

EDUCATION

Ph.D., Statistics, The University of Texas at Austin   2013 - - May 2017
    Advisor: James G. Scott
      GPA : 3.92/4
Bachelor in Mathematics, Universidad de Guanajuato   2009-2013
      GPA : 9.84/10

RESEARCH INTERESTS

Network estimation problems, sequential analysis, graphical models, nonparametric statistics, and Bayesian statistics.

PUBLICATIONS

"Sequential nonparametric tests for a change in distribution: an application to large-scale radiological survey." **Oscar-Hernan Madrid-Padilla**, Alex Athey, Reinhart, and James G. Scott. **To appear in Journal of the American Statistical Association.**

"The DFS Fused Lasso: Linear-Time Denoising over General Graphs." **Oscar-Hernan Madrid-Padilla**, James Sharpnack, James G. Scott, and Ryan Tibshirani. *Journal of Machine Learning Research, Vol. 18, No. 176, 1-36, 2018.*

"A deconvolution path to mixtures." **Oscar-Hernan Madrid-Padilla**, Nicholas Polson, and James G. Scott. *Electronic Journal of Statistics Volume 12, Number 1 (2018), 1717-1751.*

"Worst case portfolios of dynamic monetary utility functions." Daniel Hernandez Hernandez, **Oscar-Hernan Madrid-Padilla** (equal contribution). *Stochastics, Vol. 90, Number 1 (2018),*

"Tensor decomposition with generalized lasso penalties." **Oscar-Hernan Madrid-Padilla**, James G. Scott. *Journal of Computational and Graphical Statistics 2017, 26:3, 537-546.*

"Priors for Random Count Matrices Derived from a Family of Negative Binomial Processes." Mingyuan Zhou, **Oscar-Hernan Madrid-Padilla**, and James G. Scott. *Journal of the American Statistical Association 2016, Vol. 111, No. 515, 1144-1156, Theory and Methods.*

"Vector-space markov random fields via exponential families." Wesley Tansey, **Oscar-Hernan Madrid-Padilla**, Arun Sai Suggala, Pradeep Ravikumar. *Proceedings of the The 32nd International Conference on Machine Learning.* 2015.

PAPERS UNDER REVIEW	"Adaptive Non-Parametric Regression With the K-NN Fused Lasso." **Oscar-Hernan Madrid-Padilla**, James Sharpnack, Yanzhen Chen, and Daniela Witten. *https://arxiv.org/abs/1807.11641.* 2018.
	"Distributed Cartesian Power Graph Segmentation for Graphon Estimation." Shitong Wei, **Oscar-Hernan Madrid-Padilla**, and James Sharpnack. *https://arxiv.org/abs/1805.09978.* 2018.
	"Graphon estimation via nearest neighbor algorithm and 2D fused lasso denoising" **Oscar-Hernan Madrid-Padilla**, Yanzhen Chen. *https://arxiv.org/abs/1805.07042.* 2018.
	"Nonparametric density estimation by histogram trend filtering." **Oscar-Hernan Madrid-Padilla**, James G. Scott. *http://arxiv.org/abs/1509.04348.* 2015.

TEACHING	*Instructor*, at University of California, Berkeley:

Linear Models, Fall 2017.
 My Instructor Rating: 5.6 out of 7.
 Department Average Rating : 5.0 out of 7.
 Class size: 71.
Game Theory, Spring 2018.
 My Instructor Rating: 5.5 out of 7.
 Department Average Rating : 5.3 out of 7.
 Class size: 62.

Teaching Assistant, at The University of Texas at Austin, for the following courses:

Introduction to Probability and Statistics.
Time Series.
Bayesian Statistics.
Statistical Modeling.
Experiments Design.
Statistics and Market Analysis.
Statistical models for big data.

Teaching Assistant, at The Universidad de Guanjuato, for:

Measure Theory.
Advanced Probability.
Calculus.
Real Analysis.
Topology.

Mathematics instructor for high school students in Guanajuato, Mexico, 2011-2013.

AWARDS	• Dissertation Fellowship, The University of Texas at Austin. Spring 2017. • Graduate School Fellowship, The University of Texas at Austin. Summer 2016.

	- Bonus Fellowship for Continuing Students, The University of Texas at Austin. 2015.
	- Research assistant scholarship, CIMAT. 2012-2013.
	- Best grades average of the bachelor degree in Mathematics, Universidad de Guanajuato. 2011-2012.
	- Excellence Scholarship, Mathematical Research Center (CIMAT, Mexico). 2009-2013.
	- Fourth absolute place at the Fermat Mathematical Contest, Mexico 2008.
	- Honorable mention, Ibero–American Mathematical Olympiad. 2009.
	- Honorable mention, International Mathematical Olympiad. 2008.
TALKS	- The DFS Fussed Lasso: Linear Time Denoising over General Graphs. Biostat Seminar. University of California, Berkeley. March 2018.
	- The DFS Fussed Lasso: Linear Time Denoising over General Graphs. Yu Group. University of California, Berkeley. November 2017.
	- The DFS Fussed Lasso: Linear Time Denoising over General Graphs. SLAB LAB SEMINAR. University of Washington. March 2017.
	- The DFS Fussed Lasso: Linear Time Denoising over General Graphs. STATISTICS SEMINAR. The Department of Statistical Science, Cornell University. February 2017.
	- The DFS Fussed Lasso: Linear Time Denoising over General Graphs. SEMINAR SERIES. Department of Statistics and Data Sciences, The University of Texas at Austin. October 2016.
	- Worst case portfolios of dynamic monetary utility functions. XLV Congress of the Mexican Mathetamatical Society. 2012.
Editorial service	*Reviewer for*: Journal of the American Statistical Association, Journal of Computational and Graphical Statistics, IEEE Transactions on Signal and Information Processing over Networks.
Professional service	*Judge for* the third annual Berkeley statistics DataFest on April 13-15, 2018