

# Ethan Berger Anderes

Curriculum Vitae<sup>1</sup>  
Department of Statistics  
University of California at Davis  
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## Education

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**Ph.D. in Statistics, University of Chicago** 2005

Thesis: *Estimating Deformations of Gaussian Random Fields.*

Adviser: *Michael L. Stein.*

**Bachelor of Arts in Mathematics, University of Minnesota** 2000

**Bachelor of Arts in Philosophy, University of Minnesota** 2000

## Professional Experience

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**Associate Professor, Department of Statistics** 2014-present  
**University of California at Davis**

**Assistant Professor, Department of Statistics** 2008-2014  
**University of California at Davis**

**Visiting Assistant Professor, Department of Statistics** 2006-2008  
**University of California at Berkeley**

**NSF Mathematical Sciences Postdoctoral Fellowship** 2005-2008  
**University of California at Berkeley**

**Research and Software Development** Summer 2007  
**Jet Propulsion Laboratory, NASA**

## Current Preprints

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- [1] E. Anderes, S. Borgwardt and J. Miller. *Discrete Wasserstein Barycenters: Optimal Transport for Discrete Data.* <http://arxiv.org/abs/1507.07218>.
- [2] E. Anderes and M. Coram. *A general spline representation for nonparametric and semiparametric density estimates using diffeomorphisms.* [arxiv.org/abs/1205.5314](http://arxiv.org/abs/1205.5314).

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<sup>1</sup>Supporting documents, including publication preprints, can be found at <https://github.com/EthanAnderes/Curriculum-Vitae>

## Published Papers

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- [1] E. Anderes, B. D. Wandelt and G. Lavaux (2014). *Bayesian inference of CMB gravitational lensing*. *The Astrophysical Journal* **808**, 152
- [2] E. Anderes (2013). *Decomposing CMB lensing power with simulation*. *Physical Review D* **88**, 083517
- [3] E. Anderes, Huser, R., Nychka, D., Coram, M. (2013). *Nonstationary positive definite tapering on the plane*. *Journal of Computational and Graphical Statistics* **22**, 4, 848-865.
- [4] E. Anderes and D. Paul (2012). *Shrinking the quadratic estimator of weak lensing*. *Physical Review D* **85**, 103003.
- [5] E. Anderes and A. van Engelen (2012). *The matter spectral density from lensed CMB observations*. . *Statistical Challenges in Modern Astronomy V*, Springer-Verlag, New York.
- [6] E. Anderes (2012). *Robust Adaptive Wiener Filtering*. Refereed paper for *IEEE International conference on image processing*.
- [7] E. Anderes (2012). *Kriging*. *Encyclopedia of Environmetrics ed2*, Wiley.
- [8] E. Anderes, L. Knox, A. van Engelen (2011). *Mapping gravitational lensing of the CMB using local likelihoods*. *Physical Review D* **83**, 043523.
- [9] E. Anderes and M. Stein (2011). *Local likelihood estimation for nonstationary random fields*. *Journal of Multivariate Analysis* **102**, 506-520.
- [10] E. Anderes and M. Coram (2011). *Two dimensional density estimation using smooth invertible transformations*. *Journal of Statistical Planning and Inference* **141**, 1183-1193.
- [11] E. Anderes (2010). *On the consistent separation of scale and variance for gaussian random fields*. *The Annals of Statistics* **38**, 870-893.
- [12] E. Anderes, B. Yu, V. Jovanovic, C. Moroney, M. Garay, A. Braverman, E. Clothiaux (2009). *Maximum likelihood estimation of cloud height from multi-angle satellite imagery*. *Annals of Applied Statistics* **3**, 902-921.
- [13] E. Anderes and S. Chatterjee (2009). *Consistent estimates of deformed isotropic gaussian random fields on the plane*. *The Annals of Statistics* **37**, 2324-2350.
- [14] E. Anderes and M. Stein. (2008). *Estimating deformations of isotropic gaussian random fields on the plane*. *The Annals of Statistics* **36**, 719-741.

## Grants

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**NSF CAREER grant DMS-1252795**

*2013-present*

Title: *Deformations in statistics, cosmology and image analysis.*

**NSF grant DMS-1007480** *2009-2014*  
Title: *Local Likelihood Estimation for Nonstationary Random Fields.*

**NSF Mathematical Sciences Postdoctoral Fellowship** *2005-2008*  
University of California at Berkeley

## Professional Service

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**Treasurer** *2015*  
Nonparametric Section of the American Statistical Association

**Co-organizer** *2014*  
UC Davis Statistical Sciences Symposium on  
Spatial-Temporal Statistics: Methods and Applications, UC Davis

**Associate Editor** *2013 - 2014*  
The American Statistician

**President** *2011*  
Sacramento branch of the ASA

**Vice President** *2010*  
Sacramento branch of the ASA

**Co-organizer** *2011*  
UC Davis Statistical Sciences Symposium on  
Statistical Methods for Astronomy and Astrophysics, UC Davis

**Member** *2008 - present*  
Universe at UC Davis Initiative

## Invited Lectures

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| [1] Invited presentation, Computing the Universe workshop, Berkeley, CA.   | <i>2015</i> |
| [2] Invited presentation, IMS Asia Pacific Rim Meeting, Taipei, Taiwan.    | <i>2014</i> |
| [3] Invited presentation, Carnegie Mellon University, Pittsburgh, PA.      | <i>2014</i> |
| [4] Invited presentation, Joint Statistical Meeting, Boston, MA.           | <i>2014</i> |
| [5] Invited presentation, ICSA International Conference, Hong Kong, China. | <i>2013</i> |
| [6] Invited presentation, BIRS CosmoStat13 workshop, Banff, Canada.        | <i>2013</i> |
| [7] Invited seminar, Columbia University, NY.                              | <i>2013</i> |
| [8] Invited seminar, University of Michigan, Ann Arbor, MI.                | <i>2013</i> |
| [9] Invited seminar, Stanford University.                                  | <i>2012</i> |

- [10] Invited presentation, Workshop on Computer Science and Statistics of Contemporary CMB data analysis, Paris, France. *2012*
- [11] Topic contributed paper and talk, Joint Statistical Meeting, San Diego, CA. *2012*
- [12] IMS invited session, IMS Asia Pacific Rim meeting, Tsukuba, Japan. *2012*
- [13] IMS invited session WNAR Annual Meeting, Fort Collins, Colorado. *2012*
- [14] Invited seminar, Center for Time Domain Informatics, University of California at Berkeley. *2012*
- [15] Invited seminar, University of Rome, Tor Vergata, IT. *2012*
- [16] Invited presentation, Workshop on Statistical Methods for Astronomy and Astrophysics, UC Davis. *2011*
- [17] Invited presentation, Conference on Statistical Challenges in Modern Cosmology V, Penn State. *2011*
- [18] Invited seminar, University of California at Davis. *2011*
- [19] Topic contributed paper and talk, Joint Statistical Meeting, Vancouver, BC. *2010*
- [20] Invited presentation, Interface Conference, Seattle. *2010*
- [21] Invited presentation, Conference on the Frontiers of Statistical Decision Making and Bayesian Analysis in Honor of James O. Berger, San Antonio. *2010*
- [22] Invited new-researcher presentation, SAMSI conference, Space-time Analysis for Environmental Mapping, Epidemiology and Climate Change. SAMSI. *2009*
- [23] Invited presentation, Oberwolfach conference, Challenges in Statistical Theory: Complex Data Structures and Algorithmic Optimization, Germany. *2009*
- [24] Invited seminar, University of California at Riverside. *2009*
- [25] Invited presentation, Stanford Institute for Theoretical Economics. *2008*
- [26] Invited presentation, International Biometric Society, ENAR, Arlington. *2008*
- [27] Invited presentation, Data Users Science Symposium, Caltech, Pasadena. *2006*
- [28] Invited presentation, International Biometric Society, ENAR meeting, Tampa. *2006*