

Marten Herman Wegkamp
Department of Statistics
The Florida State University
Tallahassee, Florida 32306
(850) 644-3218 (work)
wegkamp@stat.fsu.edu

Education

(1992-1996) Ph.D. degree at the Department of Mathematics, Leiden University, the Netherlands

Dissertation: *Entropy Methods in Statistical Estimation*

Dissertation Advisors: Willem R. van Zwet and Sara A. van de Geer

(1988-1992) M.S. degree at the Department of Mathematics, Leiden University, the Netherlands

Advisor: Sara A. van de Geer

Professional Experience

(8/2008-present) Professor of Statistics, Florida State University

(8/2003-8/2008) Associate Professor of Statistics, Florida State University

(6/2002-6/2003) Associate Professor of Statistics, Yale University

(1/1997-6/2002) Assistant Professor of Statistics, Yale University

Visiting Professorships

(2010 - 2011) SAMSI Fellow for the program Analysis of Object-Oriented Data, NC.

(June 2009) Invited researcher at Université Paris VI. Host: Prof. Alexandre Tsybakov.

(5/2008) Invited participant of the workshop on Statistical Theory and Methods for Complex, High-Dimensional Data (7 January-27 June 2008) at the Isaac Newton Institute for Mathematical Sciences, Cambridge University, United Kingdom.

(5/2007) Visiting lecturer, Department of Statistics, Catholic University of Louvain, Belgium

(3-4/2006) Visiting scholar, Department of Biostatistics, University of California at Berkeley. Host: Professor Mark van der Laan

(7/2001) Visiting Professor, Department of Statistics, University of Rennes 2. Host: Dr Eric Matzner

(6/2001) Visiting lecturer, ENSAE/CREST Malakoff, France. Host: Dr Jean-David Fermanian

(4-5/2000) Visiting researcher, Department of Statistics, University of Washington. Host: Professor Jon Wellner

(1-3/2000) Visiting researcher, Department of Mathematics, Catholic University of Leuven, Belgium. Host: Professor Jan Beirlant

(8-12/1996) Visiting Assistant Professor, Department of Statistics, Yale University

Professional organizations

Elected member of the International Statistical Institute

Member of the Institute of Mathematical Statistics

Member of the American Statistical Association

Research interests

Classification

Copula Modeling

Learning Theory

Empirical Process Theory

Model Selection and Aggregation

Nonparametric Estimation

Awards

Stieltjes prize for the best dissertation in mathematics in 1996. Thomas Stieltjes Institute for Mathematics, the Netherlands (11 March 1998)

Professional Duties

Executive Secretary of the IMS

Associate Editor of the International Journal of Biostatistics

Associate Editor of the Electronic Journal of Statistics

Associate Editor of the IMS Lecture Notes and Monograph Series

NSF panel member

Grants

NSF DMS 0406049 Curve aggregation and classification. USD 161,296

NSF DMS 0706829 Sparsity oracle inequalities via l1 regularization in nonparametric models. USD 244,143

Research grant from the Social Sciences, Yale University, 2000

NWO (Dutch Organization for Scientific Research) postdoctoral research grant, 1996

PhD-students

Radu Herbei (graduated 5/12/2006)

Andrada Ivanescu (graduated 12/13/2008)

Wenhao Gui (Florida State University)

Publications

- (1) Dragan Radulovic and Marten Wegkamp. Uniform Central Limit Theorems for pre-gaussian classes for functions. IMS Collections: High Dimensional Probability V: The Luminy Volume, 5, 84–102 (2009).
- (2) Peter Bartlett and Marten Wegkamp. Classification with a reject option using a hinge loss. Journal of Machine Learning Research 9, 1823-1840 (2008)
- (3) Laszlo Gyorfı and Marten Wegkamp. Quantization for nonparametric regression. I.E.E.E. Transactions on Information Theory 54(2), 867-873 (2008)

- (4) Florentina Bunea, Alexander Tsybakov and Marten Wegkamp. Aggregation for Gaussian regression. *Annals of Statistics* 35(4), 1674-1697 (2007)
- (5) Florentina Bunea, Alexandre Tsybakov and Marten Wegkamp. Sparsity oracle inequalities for the Lasso. *Electronic Journal of Statistics*, 1, 169-194 (2007)
- (6) Marten Wegkamp. Lasso type classifiers with a reject option. *Electronic Journal of Statistics* 1, 155-168 (2007)
- (7) Florentina Bunea, Alexander Tsybakov and Marten Wegkamp. Sparse density estimation with ℓ_1 penalties. *COLT* (2007)
- (8) Radu Herbei and Marten Wegkamp. Classification with reject option. *Canadian Journal of Statistics* 34(4), 709-721 (2006)
- (9) Florentina Bunea, Alexandre Tsybakov and Marten Wegkamp. Aggregation and Sparsity via ℓ_1 Penalized Least Squares. *COLT* (2006)
- (10) Florentina Bunea, Marten Wegkamp, and Anna Auguste. Consistent Variable Selection in High Dimensional Regression via Multiple Testing. *Journal of Statistical Planning and Inference* 136(12), 4349-4364 (2006)
- (11) Gerard Biau, Florentina Bunea, and Marten Wegkamp. Function Classification in Hilbert Spaces. *I.E.E.E. Transactions on Information Theory*, 51(6), 2163-2172 (2005)
- (12) Gerard Biau and Marten Wegkamp. Minimum Distance Estimation of Copula Densities. *Statistics and Probability Letters* 73, 105-114 (2005)
- (13) Jean-David Fermanian, Dragan Radulovic and Marten Wegkamp. Weak Convergence of Empirical Copula Processes. *Bernoulli* 10(5), 847-860 (2004)
- (14) Gabor Lugosi and Marten Wegkamp. Complexity Regularization via Localized Random Penalties. *Annals of Statistics* 32(4), 1679-1697 (2004)
- (15) Florentina Bunea and Marten Wegkamp. Two-Stage Model Selection Procedures in Partially Linear Regression. *Canadian Journal of Statistics* 32(2), 105-118 (2004)
- (16) Nicolas Hengartner and Marten Wegkamp. Second Order Asymptotics for M-Estimators under Non-standard Conditions. *Proceedings of the first Erich L. Lehmann Symposium (IMS Lecture Notes Series)*, pp 107-124 (2004)
- (17) Dragan Radulovic and Marten Wegkamp. Necessary and Sufficient Conditions for Weak Convergence of Smoothed Empirical Processes. *Statistics and Probability Letters* 61(3), 321-336 (2003)

- (18) Florentina Bunea and Marten Wegkamp. A note on penalized minimum distance estimation in nonparametric regression. *Canadian Journal of Statistics* 31(3), 267-274 (2003)
- (19) Marten Wegkamp. Model Selection in Nonparametric Regression. *Annals of Statistics* 31(1), 252-273 (2003)
- (20) Nicolas Hengartner, Eric Matzner-Lober and Marten Wegkamp. Bandwidth Selection for Local Linear Regression. *Journal of the Royal Statistical Society, Series B* 64 (4), 1-14 (2002)
- (21) Donald Brown and Marten Wegkamp. Weighted Mean-Square Distance from Independence Estimation. *Econometrica* 70(5), 2035-2051 (2002)
- (22) Nicolas Hengartner and Marten Wegkamp. Estimation and Selection Procedures in Regression: an L1 approach. *Canadian Journal of Statistics* 29 (4), 621-632 (2001)
- (23) Dragan Radulovic and Marten Wegkamp. Weak Convergence of Smoothed Empirical Processes: beyond Donsker Classes. In *High Dimensional Probability II*, E. Giné, D. Mason and J. Wellner Editors, Birkhauser, 89 - 106 (2000)
- (24) Marten Wegkamp. Quasi-Universal Bandwidth Selection for Kernel Density Estimators. *Canadian Journal of Statistics* 27(2), 409 - 420 (1999)
- (25) Marten Wegkamp. *Entropy Methods in Statistical Estimation*. CWI-tract volume 125, Amsterdam, The Netherlands (1999)
- (26) Roelof Helmers and Marten Wegkamp. Wild Bootstrapping in Finite Populations with Auxiliary Information. *Scandinavian Journal of Statistics* 25, 383 - 399 (1998)
- (27) Sara van de Geer and Marten Wegkamp. Consistency for the Least Squares Estimator in Nonparametric Regression. *Annals of Statistics* 24, 2513 - 2523 (1996)

Invited Presentations at Conferences

(3/2009) Sparse Recovery Problems in High Dimensions: Statistical Inference and Learning Theory, Oberwolfach, Germany

(9/2008) Generalized Support Vector Machines in Sparse Settings. *Understanding the New Statistics: Expanding Core Statistical Theory* at Banff International Research Station, Banff, Alberta

(5/2008). Lasso type classifiers with a reject option. Statistical Theory and Methods for Complex, High-Dimensional Data Workshop. Isaac Newton Institute for Mathematical Sciences, Cambridge University, United Kingdom.

(3/2008) Lasso type classifiers with a reject option. The 2008 Workshop on Sparsity in High Dimensional Statistics and Learning Theory. Georgia Tech University, Atlanta, Georgia.

(8/2007) Sparsity oracle inequalities for the Lasso. 2007 Joint Statistical Meeting. Salt Lake City, Utah

(7/2006) Classification with a reject option. XXVI European Meeting of Statisticians, Torun, Poland

(5/2006) Oracle inequalities in sparse, high-dimensional regression problems. 2006 International Workshop on Applied Probability. University of Connecticut, Storrs, Connecticut

(10/2005) Classification with a reject option. Statistische und Probabilistische Methoden der Modellwahl. Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach, Germany

(8/2005) Aggregation for regression learning. 2005 Joint Statistical Meeting. Minneapolis, Minnesota

(10/2004) Aggregation for regression learning. Notions of Complexity: Information-Theoretic, Computational and Statistical Approaches. Eurandom, Eindhoven, the Netherlands

(1/2003) Complexity regularization via localized random penalties. Nonparametric Statistics Research Conference. Florida State University, Tallahassee, Florida

(8/1999) What is the best way to approximate the probability measure? Second International Conference on High Dimensional Probability. University of Washington, Seattle, Washington

(9/1998) Entropy methods in nonparametric regression. Workshop on Empirical processes in non- and semi-parametric regression. Satellite Meeting of the International Congress of Mathematicians 1998. Weierstrass Institute for Applied Analysis and Stochastics, Berlin, Germany

(9/1995) An L2 approach towards nonparametric regression. Paris-Berlin Seminar on Mathematical Statistics : Complex Models in Nonparametrics. Schmerwitz, Germany

(9/1995) Consistency for the least squares estimator in nonparametric regression. Ninth European Young Statisticians Meeting. Erasmus University, Rotterdam, the

Netherlands

Contributed Presentations at Conferences

(6/2007) Sparse density estimation with ℓ_1 penalties. 20th Annual Conference on Learning Theory. San Diego, California

(6/2006) Aggregation and sparsity via ℓ_1 penalized least squares. 19th Annual Conference on Learning Theory. Pittsburgh, Pennsylvania

(7/2004) Complexity regularization via localized random penalties. 6th World Congress of the Bernoulli Society for Mathematical Statistics and Probability Theory and 67th Annual Meeting of the Institute of Mathematical Statistics. Barcelona, Spain

(7/2002) Complexity regularization via localized random penalties. Current Advances in Nonparametric Statistics. Crete, Greece

(8/1999) Quasi-universal bandwidth selection for kernel density estimators. Joint Statistical Meetings (159th Annual Meeting of the American Statistical Association). Baltimore, Maryland

(8/1998) Estimation and selection procedures in regression: an L1 approach. 22nd European Meeting of Statisticians. Vilnius, Lithuania

(9/1997) Second order asymptotics for Z-estimators. Workshop on Resampling Methods. Centre de recherches mathématiques, Montreal, Canada

(8/1995) Consistency for the least squares estimator in nonparametric regression. 21st European Meeting of Statisticians. Aarhus, Denmark