CURRICULUM VITAE and BIBLIOGRAPHY

Name:
Mark Johannes van der Laan.

Nationality:
Dutch.

Marital status:
Married to Martine with children Laura, Lars, and Robin.

University address:
University of California
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Working Papers, Division of Biostatistics: www.bepress.com/ucbbiostat

EDUCATION

June 1, 1990- December 13, 1993:
Ph.D student of Prof. Dr. R.D. Gill.
Position for four years: 25% teaching, 75% research and education.

Specialization: Estimation in Semiparametric and Censored Data Models.

August 29, 1991 - February 28, 1992: **University of California, Berkeley**.
Statistics Program at M.S.R.I.: "Semiparametric Models and Survival Analysis".
Research:
Guidance by second Promotor Prof. Dr. P.J. Bickel.
Subject: "Efficient Estimation in the Bivariate Censoring Model".

December 13, 1993: Official Public Defense of Ph.D Thesis.

1985-1990:
Masters degree in Mathematics at the University of Utrecht, The Netherlands.
Major: Statistics.

1988-1989:

One year study, Masters degree courses at the Department of Statistics, **North Carolina State University, Raleigh**, North Carolina, U.S.A. G.P.A 4.0, Dean's List.

1989-1990:

Masters thesis under guidance of Prof. Dr. R.D. Gill.
Subject: The Dabrowska Estimator and the Functional Delta method.
Grade (from 1-10, 10=top): 9.5.

Official Completion: May 1, 1990.

POSITIONS

July 2000 until now: Professor Biostatistics and Statistics (joint appointment), School of Public Health and Department of Statistics, University of California, Berkeley.

July 1998 until July 2000: Associate Professor Biostatistics and Statistics (joint appointment), School of Public Health and Department of Statistics, University of California, Berkeley.

May 2005 until now*: Long-term statistical consultant/adjunct professor for Bioinformatics at the Aging Buck Institute, Novato.

October-December, 1998: Visiting Professor, Department of Mathematics, Free University Amsterdam, host: Prof. Dr. A.W. van der Vaart.

October-December, 1999: Honorary Visiting Professor, Department of Statistics, Auckland, New Zealand, host: Prof. Dr. A. Scott.

Spring 2007 Miller Professor, UC Berkeley.

Spring 2001: Invited to be Visiting Professor, Department of Biostatistics, Leiden University, the Netherlands, host: Prof. Dr. H. van Houwelingen.

May, 2003: Visiting Professor, Department of Mathematics, Free University Amsterdam.

October, 2003 Constance van Eeden Distinguished Lecturer, University of British Columbia, Vancouver, Canada.

March 1999 until 2004: Long Term Statistical Consultant at Chiron for the Microarray Technology Research Group, Data Analysis and Method Development. Chiron is the world's second largest Biotech Company with headquarters located in Bay Area.

September 2004-present: Director of the Biostatistics and Computing core of the Superfund Research Program (Genomics in environmental science) in the School of Public Health headed by Prof Martyn Smith.

October 1994 through July 1998: Assistant Professor, Biostatistics, School of Public Health, University of California, Berkeley.

July, 1994 through October, 1994: Visiting Assistant Professor, Biostatistics, School of Public Health, University of California, Berkeley.

January, 1994 through June, 1994: Neyman Visiting Assistant Professor, Department of Statistics, University of California, Berkeley.

June, 1990 through December, 1993: Teaching Assistant in the Department of Mathematics during Ph.D position, Utrecht, for masters degree courses.

Courses: Algebra B and C, Math. Analysis B and C (physics students),
Intr. Stochastic Analysis, Measure and Integration theory (math. students),

Mathematics I and II (chemistry students).
Statistics for Physical Sciences

PRESENTED LECTURES

- *Efficient Estimation in the Bivariate Censoring Model*: October 11, 1991, MSRI, Berkeley.

Workshop *Survival Analysis* at MSRI.

- *Efficient Estimator of the Bivariate Survival Function for Right Censored Data*: January 29, 1992, University of Pennsylvania, Philadelphia.

Invited Speaker Statistics Colloquium.

- Ditto : January 30, 1992, Pennsylvania State University.

Invited Speaker Statistics Colloquium.

- Ditto : February 10, 1992, Berkeley, Department of Statistics.

Student Seminar.

- *Efficient Estimator of the Bivariate Survival Function*: April 1992, Department of Statistics, Utrecht.

Statistics Student Seminar of Dr. B. Levit.

- *Efficient Estimation in Nonparametric Missing Data Models*: September 17, 1992, Bath.

EMS Conference, Bath.

- *Analysis of Dabrowska's Estimator*: June 1990, Department of Statistics, Utrecht.

Statistics Colloquium.

- *Analysis of an Estimator based on a Modification of the EM-Equations*: April 1991, Department of Statistics, Utrecht.

Statistics Colloquium.

- *Hoffmann-Jorgensen Weak Convergence Theory and the Proof of an Almost Sure Representation Theorem*: March 20, 1991, CWI, Amsterdam.

Workshop *Statistics in Large Parameter Spaces.*

- *An Identity for Linear Parameters in Convex Models*: February 10, 1993, Department of Statistics, Utrecht.

Statistics Colloquium.

- *An Identity for Linear Parameters in Convex Models*: April 1, 1993, Department of Mathematics, Utrecht.

Department Colloquium.

- *General Efficiency Theory for the NPMLE and an Identity for Linear Parameters in Convex Models*: April 15, 1993, Euler International Mathematical Institute, St. Petersburg, Russia.

Workshop on *Nonparametric and Semiparametric Models (asymptotic problems)* of the Kolmogorov Semester on Probability and Statistics.

- *General Efficiency Theory for the NPMLE and an Identity for Linear Parameters in Convex Models*: September 8, 1993, Technical University Delft.

Invited Speaker Statistics Colloquium.

- *General Efficiency Theory for the NPMLE and an Identity for Linear Parameters in Convex Models*: September 29, 1993, Technical University Eindhoven.

Invited Speaker Statistics Colloquium.

- *Efficiency of NPMLE in missing data models, method to prove and applications*: October 28, 1993, University of Groningen.

Invited Speaker Statistics Colloquium.

- *Efficiency of NPMLE in missing data models, method to prove and applications*:

December 2, 1993, Universite de Paris Sud
Invited Speaker Statistics Colloquium.

- *A Useful Identity for NPMLE*:

February 11, 1994, Group in Biostatistics, University of California, Berkeley
AIDS Seminar led by N.P. Jewell.

- *NPMLE in Models where Part of the Observations are Censored*:

February 14, 1994, Group in Biostatistics, University of California, Berkeley.
Seminar.

- *NPMLE in Models where Part of the Observations are Censored*:

April 1994, Department of Biostatistics, University of California, San Francisco.
Biostatistics Seminar.

- *The Bivariate Censoring Model*:

April 1994, Department of Statistics, University of California, Berkeley
Statistics Seminar.

- *The Bivariate Censoring Model*:

April 11, 1994, Cleveland, Ohio.
Invited Speaker at the 1994 Biometric Society ENAR spring meeting on the subject "Multivariate Censored Data", held jointly with the IMS and ASA.

- *The Bivariate Censoring Model*:

June 16, 1994, Boston.
Invited Speaker at the 1994 IMS Conference on Lifetime Data Models in Reliability and Survival.

- *Proving Efficiency in Biased Sampling and Missing Data Models*:

June 24, 1994, Chapel Hill, North Carolina.
Invited Speaker for the session "Likelihood" at the 3rd World Congress of the Bernoulli Society and 57th Annual Meeting of the Institute of Mathematical Statistics.

- *Current Status Data with Time-Dependent Covariates*:

October 7, 1994, Group in Biostatistics, University of California, Berkeley
AIDS Seminar led by N.P. Jewell.

- *Ignoring Information on Nuisance Parameter Improves Efficiency*:

February 19, 1995, Group in Biostatistics, University of California, Berkeley
AIDS Seminar led by N.P. Jewell.

- *Locally Efficient Estimation with High Dimensional Covariate Processes*, December 16, 1994, Oberwolfach, Germany.

Invited speaker for Conference on "Asymptotic Methods for High Dimensional Data".

- *Locally Efficient Estimation in CAR-Missing Data Models*:

March 29, 1995, Rutgers University, New Jersey.
Invited speaker Statistics Seminar.

- *Locally Efficient Estimation in CAR-Missing Data Models*, Davis University, Davis, California.

Invited speaker Statistics Seminar.

- *Efficient Estimation of the Onset and Lifetime Distribution in Carcinogenicity Experiments*, September 22, 1995, Group in Biostatistics, University of California, Berkeley.
AIDS Seminar led by N.P. Jewell.

- *The Line-segment Problem*, June 14–16, 1995, Atlanta, Georgia.

Invited speaker in session "Stochastic Geometry", 8th Applied Probability Group Confer-

ence.

- *Singly and Doubly Censored Current Status Data: Estimation, Regression and Asymptotics*, August 2, 1995, Berkeley.
Invited speaker, NSF Econometrics Symposium 1995.
- *Locally Efficient Estimation with Current Status Data and Covariates*, October 30, 1995, Colombia University, New York.
Invited speaker, Statistics Seminar.
- *Locally Efficient Estimation with Current Status Data and Covariates*,
April 5, 1996, Division of Biostatistics, Berkeley.
Aids seminar led by N.P. Jewell.
- *Locally Efficient Estimation with Current Status Data and Time-Dependent Covariates*,
April 9, 1996, Department of Statistics, University of California, Berkeley.
Invited speaker, Neyman seminar.
- *An Identity for NPMLE in Censored Data Models*,
June 24, 1996, Washington State University, Pullman, WA.
Invited speaker, Joint Regional Meeting Biometric and IMS.
- *Locally Efficient Estimation with Current Status Data and Covariates*,
August 5, 1996, Chicago.
Invited speaker, Joint Statistical Meeting.
- *Nonparametric Estimation of the Bivariate Survival Function*,
August 26, 1996, Vienna, Austria.
Invited speaker, 4th World Congress of the Bernoulli Society.
- *Locally Efficient Estimation with Current Status Data*,
October 24, 1996, Johns Hopkins University, Baltimore, Maryland.
Invited speaker, Statistics Seminar.
- Presented two lectures on survival analysis in the research group meeting with 6-8 Epidemiology graduate students led by Prof. Dr. I. Tager, Division of Epidemiology, Berkeley, Fall, 1997.
- *Inference in High Dimensional Semiparametric Censored Data Models*,
July 7-9, 1997, Taipei, Taiwan.
Speaker and organizer of session, Joint meeting with the Chinese Statistical Association and the Chinese Institute of Probability and Statistics.
- *Inference in High Dimensional Semiparametric Censored Data Models and Testing Treatment Effects in Observational Studies*,
August 18-22, 1997, University of Minnesota, Minneapolis, Minnesota.
Invited speaker, Workshop of Institute of Mathematics and Applications.
- October 1997, Invited by Prof. Dr. J.M. Robins, Harvard School of Public Health, Boston, to give series of lectures on proving asymptotics for semiparametric models.
- Fall, 1997, Invited speaker, Statistics Seminar, Emory University, Atlanta (also invited at another University in Atlanta, but cancelled).
- March 3, 1998, Invited speaker, Statistics Seminar, Department of Statistics, University of California, Berkeley.
- September, 1998, Speaker Biostatistics Seminar, UC Berkeley.
- *Locally Efficient Estimation in Censored Data Models: Theory and Examples*, October 22, 1998, Invited speaker, Statistics Seminar, Department of Statistics, Florida State University, Tallahassee.
- *Causality in Public Health Studies*, October 29, 1998, Invited speaker, Foundations

for the Future Symposium in honor of Dean P. Buffler, School of Public Health.

- *Locally Efficient Estimation in Censored Data Models: Theory and Examples* October 23-25, 1998, Invited speaker, Conference in honor of Professor Alfred H. Clifford, Tulane University, New Orleans, Texas. Clifford lecturer: Bickel.
- *Locally Efficient Estimation in Censored Data Models: Theory and Examples*, November, 1998, Invited speaker, Department of Mathematics, Free University, Amsterdam.
- *Locally Efficient Estimation in Censored Data Models: Theory and Examples*, March 11, 1999, Invited speaker Statistics Colloquium, Department of Statistics, Stanford.
- April 23-24, 1999, Invited to be the panel discussant for conference with four invited speakers on "Informative missing data", Texas A& M University.
- *Current Status Data on a Stochastic Process*, August 8-12, 1999, Invited speaker and discussant Joint Statistical Meeting ASA, Baltimore.
- *Locally Efficient Estimation in Censored Data Models: Theory and Examples*, November, 1999, Invited speaker, Statistics Seminar, Department of Statistics, Auckland, New Zealand.
- *Statistical Inference with Microarray Data using the Parametric Bootstrap*, February 8, 2000, Invited speaker, Statistics Seminar, Department of Statistics, University of California, Berkeley.
- *Fighting Cancer using the Microarray Technology: the Statistical Challenges*, February 15, 2000, Research Symposium, School of Public Health, University of California, Berkeley.
- *Using Instrumental Variables to Estimate Causal Effects with Unmeasured Confounders*, March, 1999, Invited speaker Epidemiology Seminar, School of Public Health, University of California, Berkeley.
- *Causal Inference with Marginal Structural Nested Mean Models in Longitudinal Studies*, March 19-22, 2000, Organizer and speaker of session "Causal Inference" of joint IMS/ENAR meeting, Chicago.
- *Statistical Inference with Microarray Data: Application to Data on 30 Colon Cancer Patients*, March 24, 2000, Chiron.
- *Locally Efficient Estimation in Regression Models with Current Status Data and General Theory*, March 30, 2000, Invited Speaker, Statistics Seminar, Department of Statistics, University of Washington, Seattle.
- *Statistical Inference with Microarray Data using the Parametric Bootstrap*, March 31, 2000, Invited Speaker, Fred Hutchinson Cancer Institute, Seattle.
- *Locally Efficient Estimation with Multivariate Right Censored Data*, May 15-20, 2000, Invited speaker Survival Analysis session of the 5-th World Congress of the Bernoulli Society for Probability and Mathematical Statistics, Guanajuato, Mexico.
- *Statistical Inference with Microarray Data using the Parametric Bootstrap*, May 25, 2000, Invited speaker, Eurandom, Eindhoven, the Netherlands.
- August 13-17, 2000, Invited speaker Joint Statistical Meeting of the American Statistical Association.
- Local organizer and Invited speaker of Causal Inference Conference sponsored by Bernoulli, Berkeley, 2000.
- *Statistical Inference with Microarray Data using the Parametric Bootstrap*, August 11, 2000, Applied Biosystems.
- *Statistical Inference with Microarray Data using the Parametric Bootstrap*, August 25, 2000, National Cancer Institute, Washington.
- *Statistical Inference with Microarray Data using the Parametric Bootstrap*, October

11, 2000, Invited speaker Statistics Seminar, Department of Biostatistics, UCLA.

- *Locally efficient estimation in censored data and causal inference models*, University of Wisconsin, Madison, April 20, 2001.
- *Locally efficient estimation in censored data and causal inference models*, February 21, 2001, Invited speaker Statistics Seminar, Department of Biostatistics, Johns Hopkins University.
- *Statistical Inference with Microarray Data using the Parametric Bootstrap*, March 28, 2001, Empirical Processes in Biostatistics, invited session ENAR/IMS.
- *Doubly robust locally efficient estimation*, Department of Statistics, University of California, Irvine.
- *Statistical Inference with Microarray Data using the Parametric Bootstrap*, May 3, 2001, Invited speaker Statistics Seminar, Department of Biostatistics, Stanford University.
- *Hybrid-clustering and inference with microarray data*, Invited speaker in the Fourth Annual Winter Workshop "Classification and Clustering", The Department of Statistics of the University of Florida, Gainesville, Florida, January 10-12, 2002.
- *Overview of Bioinformatics*, Invited speaker in the Genetic and Environmental Toxicology Association (GETA) meeting, June 5, 2001, Oakland.
- Invited speaker in session on Missing Data for the XXXIViemes journees de statistique organized by Louvain-la- Neuve and Brussels, Brussels, Belgium, May 13-17 2002.
- Invited speaker at IPAM, UCLA, in workshop on Computational Biology, March 2002, UCLA.
- Organiser and speaker in joint IMS/RSS research session" at the RSS general meeting in Plymouth, September 3-6, 2002, on the Statistical analysis of microarray data.
- Invited speaker JSM meeting in session on Statistical Analysis of Microarray Data, August 11-15, 2002, New York.
- Invited speaker, Workshop on High Dimensional Medical Data at Leiden University, September 12-19, 2002, the Netherlands.
- Invited speaker of the SCI 2002 Sixth Multi-Conference on Systemics, Cybernetics and Informatics, July 14-18 Florida.
- Invited speaker IISA Fourth Biennial International Conference on Statistics, Probability and Related Areas, June 14-16, 2002.
- Invited speaker at Stanford Berkeley Symposium in honour of Emeritus Professors at Berkeley and Stanford University. June 22, 2002.
- Invited speaker Genomics Seminar, University of California, Berkeley, January, 2003.
- Invited speaker at a Symposium Challenges in the Statistical Analysis of Genomic Data" at the AAAS meeting, Denver, February 13-18, 2003.
- Invited speaker at IMS/ENAR meeting in session on Statistical Genomics, March 30-April 2, 2003.
- Invited speaker in International Conference on Reliability and Survival Analysis Department of Statistics, USC, Columbia, South Carolina, May 21-24, 2003.
- Invited speaker in workshop on Statistical Aspects of Microarray Data, Aarhus University, Denmark, February 20 - February 22, 2003.
- Invited speaker in Bioinformatics seminar and Statistics Seminar, Free University, Amsterdam, the Netherlands, May, 2003.
- Invited speaker in session on genomic data of the Joint Statistical Meeting, August 3-7, 2003.
- Invited speaker in session "Sensitivity analysis with non-ignorable missing data" for

the 2003 WNAR/IMS meeting, Colorado school of mines, Denver, June 22-25, 2003.

- Invited speaker workshop on "Microarray Data Analysis", Madrid, Spain, October 30-31, 2003.
- Invited speaker in the Iberoamerican Conference on Systemics, Cybernetics and Informatics: CISCI 2003, July 31 to August 2.
- Invited speaker (among 17 invited one hour presentations) in the IX Congreso Latinoamericano de Probabilidad y Estadistica Matematica (CLAPEM), at Montevideo, Uruguay, March 22-26, 2004. The CLAPEM is the usual gathering occasion for the stochastics people, -researchers, professors and graduate students- from South America.
- Invited speaker workshop on microarray data analysis, Institute of Applied Mathematics, Minneapolis, Minnesota, September 29-October 3, 2003.
- Two lectures as the Constance van Eeden Visiting Professor, University of British Columbia, Vancouver, Canada, October 6-12, 2003.
- Invited speaker workshop on Genomic approaches to microarray data analysis, organized by the European Science Foundation, Madrid, Spain, 30-31 October 2003.
- Invited speaker, Statistics Seminar, Cornell University, Ithaca, New York, November 7, 2003.
- Invited speaker, Statistics Seminar, Cleveland Research Foundation, Cleveland, November 21, 2003.
- Invited speaker, Stowers Institute for Medical Research, Kansas City, April 27, 2004.
- Invited speaker, International Conference on Analysis of Genomic Data, the Harvard Medical School, May 10-11, 2004, Boston.
- Invited speaker, Department of Statistics, Yale University, March 2004
- Invited speaker, Department of Statistics, Columbia University, March 2004
- Invited speaker, Department of Biostatistics, Harvard University, March 2004
- Invited speaker, Biostatistics Branch, Division of Cancer Epidemiology and Genetics, National Cancer Institute, NIH, November 8, 2004.
- Invited speaker, San Francisco Chapter of the American Statistical Association, September 23, 2004.
- Invited speaker, Fred Hutchinson Cancer Research Institute, September 31, 2004.
- Invited speaker, Dana Farber Cancer Research Institute, October 5, 2004.
- Invited speaker, Workshop Genomics, Proteomics, and Bioinformatics, The Mathematical Biosciences Institute, Ohio State University, April 18-22, 2005.
- Invited Keynote speaker, Taipei Symposium on Statistical Genomics, Institute of Statistical Science, Academica Sinica, December 15-17, 2004.
- Invited speaker, Department of Biostatistics, University of North Carolina, Chapell Hill, November 8, 2005.
- Organizer of Spiegelman Award session at Annual Public Health meeting, November 6, 2005. Postponed to february 2006.
- Invited speaker, lecture on classification and prediction, Eurandom Workshop, October 2-5, 2005.
- Invited speaker, Statistics Colloqium, Department of Statistics, University of California, Berkeley, November 29, 2005.
- Invited to present various lectures, Division of Epidemiology and Biostatistics, Academic Medical Centre, University of Amsterdam, January 2006.
- Invited to present lecture on Super Learning and HIV-resistance analyses at the Stanford Medical Centre, Stanford, March 2, 2006.
- Guest lecture, Course on marginal structural models, SPH, UC Berkeley, April 26,

2006.

- Invited lecture, BANFF workshop on Statistical Methods in Genomics, July 12, 2006.
- Keynote Speaker in workshop on causal inference, University of Philidelphia, July 26, 2006.
- Invited lecture on multiple testing, Fred Hutchinson Cancer Research centre, June 18, 2006.
- Invited lecture on multiple testing, ASA chapter, Berkeley, CA, June 19, 2006.
- Invited lecture and co-organizer AIDS workshop, Harvard University, May 11-12, 2006. • Invited lecture, Workshop Frontiers of Statistics in honor of Peter Bickel, May 18, 2006.
- Invited lecture on multiple testing, BASS VII meeting, Savannah, Georgia, November 6, 2006.
- Invited to give workshop on statistical analysis of genomic data, Luminy, French, November 13-17, 2006.
- Invited lecture on Targeted Maximum Likelihood Learning, Department of Biostatistics, Yale University, December 8, 2006.
- Invited lecture on Targeted Maximum Likelihood Learning, Department of Statistics, FSU, September 5, 2007.
- Invited Odoroff Memorial lecture on Targeted Maximum Likelihood Learning, Department of Biostatistics, University of Rochester, September 20, 2007. • Invited Lecture on Causal Inference in Clinical Trials and Post Market Data Analysis, Federal Drug Administration (FDA), August 8, 2007.
- Invited Lecture on Statistical Learning From Data in Discovery, Buck Institute, Novato, CA, May 24, 2007.
- Invited Miller Lecture on Super Learning, Miller Institute, as Miller Professor, May 3, 2007.
- Invited lecture on Targeted Maximum Likelihood Learning, Statistics Seminar, University of Chicago, April 16, 2007.
- Invited lecture on Targeted Maximum Likelihood Learning and Super Learning in AIDS Research, April 11-13, Workshop on statistical methods in AIDS research, Vaile, Colorado.
- Invited lecture on Targeted Maximum Likelihood Learning, ENAR, 12007, April 14 (lecture given by my Ph.D student Dan Rubin).
- Invited Lecture, Targeted Maximum Likelihood Learning of Scientific Questions, Seminar, Genentech, March 6, 2007.
- Lecture on Causal Inference in Dr. Ph. seminar by Prof. J. Bloom, SPH, UCB, March 13, 2007.
- Invited lecture on multiple testing, seminar, USC, CA, February 15, 2007.
- Invited Lecture on Targeted Maximum Likelihood Learning with application to Air-pollution studies, Workshop on Environmental Statistics, University of Florida, Gainesville, January 12-14, 2007.
- Invited to give workshop on analysis of censored data, Boehringer Pharmaceuticals, October 12, 2006.
- Invited lecture on targeted maximum likelihood learning with applications in genomics, Leuven University, Belgium, October 2007.
- Lecture on Targeted Maximum Likelihood Learning, Biostatistics seminar, Division of Biostatistics, UC Berkeley, September 12, 2006.

Guest lecture in seminar on marginal structural models, SPH, UC Berkeley, December 10,

2007.

- Invited lecture, Anderson Cancer Centre, Texas, January 2008.
- Invited lecture, Department of Biostatistics, Harvard University, May 2008.
- Invited lecture, HIV research group Fred Hutchinson Cancer Centre, January 2008.

CONFERENCES

November 12-16, 1990:

Bijeenkomst Stochastici: Yearly Dutch Conference for Statisticians and Probabilists with foreign invited speakers. Lunteren, The Netherlands.

And a special meeting for Ph.D. students with workshops given by: Donoho, Groeneboom, Keane, Meilijson.

September 1, 1991 - March 1, 1992: M.S.R.I. Statistics Program covering Semiparametric models and Survival Analysis.

September 14-18, 1992: European Meeting of Statisticians (E.M.S.), Bath, U.K.

November 16-20, 1992:

Bijeenkomst Stochastici: (see 1990).

Special meeting for Ph.D students with workshops given by: Bickel, Mammen, Zolotarev, Petrov.

Several lecture days

Lectures day of the V.V.S. (The Netherlands Society for Statistics and Operations Research): 1990, 1992.

V.V.S. Day: 1990, 1992, 1993.

April 13-25, 1993:

Invited for workshop on *Nonparametric and Semiparametric Models (asymptotic problems)* of the Kolmogorov Semester on Probability and Statistics, Euler International Mathematical Institute, St. Petersburg, Russia.

June 28-July 3, 1993:

Invited for Sixth International Vilnius Conference on Probability Theory and Mathematical Statistics, Vilnius, Lithuania.

Cancelled.

April 9-13, 1994:

Invited for the IMS Invited Speakers Session on the subject of survival analysis, Cleveland, Ohio.

June 20-25, 1994:

Invited for the BS-IMS meeting in Chapel Hill, North Carolina.

June 15-17, 1994:

Invited for International Research Conference on Lifetime Data Models in Reliability and Survival Analysis, Boston, Harvard University.

December 4-11, 1994:

Invited for "Workshop on Le Cam's theory for convergence of experiments" at Yale University in New Haven and for the two day conference on "Asymptotic Methods in Statistical Decision Theory" on December 9 and 10.

December 11-17, 1994:

Invited for Conference on "Asymptotics for High Dimensional Statistical Models" in Oberwolfach, Germany.

December 28, 1994, January 1, 1995:
Invited for a workshop on *Analysis of Censored Data* at the Department of Statistics, University of Poona, Pune, India.
Cancelled.

June 14-16, 1995:
Invited for 8th Applied Probability Group conference, Georgia Institute of Technology, Atlanta, Georgia.

August 13-17, 1995:
Invited for workshop of IMS conference in Florida.
Not accepted.

July 10–17, 1996:
Invited for World Congress of Nonlinear Analysts, International Federation of Nonlinear Analysts, Athens, Greece.
Not accepted.

June 23-26, 1996
Invited for IMS invited paper session "Empirical process applications in survival analysis" in Pullman Washington for the regional IMS/WNAR meeting.

June 30- July 4, 1996
Invited for Stochastic Conference, Monte Carlo and Empirical Methods, AMS-IMS-SIAM Joint summer research conference, South Hadley, MA.
Not accepted.

July 30, August 6, 1996
Invited for EML/NSF Symposium on the Bootstrap.

August 4–8, 1996:
Invited for 1996 Joint Statistical Meeting Biometrics Society, Chicago.

August 26-31, 1996:
Invited for Bernoulli 4th World Congress, Vienna.

July 7-9, 1997 Invited for Joint meeting with the Chinese Statistical Association and the Chinese Institute of Probability and Statistics, Taipei, Taiwan.

August 10-14, 1997 Asked to organize a session for the Joint Statistical Meeting, Anaheim, California.

August 18-22, 1997 Invited to give one of the plenary talks in the Workshop of Institute of Mathematics and Applications, University of Minnesota, "Causal Inference in Observational Studies".

November-December, 1998: Invited by Prof. Dr. A.W. van der Vaart, Department of Mathematics, Free University, Amsterdam, to spend a month in his Department doing research.

October 23-25, 1998: Invited speaker, Conference in honor of Professor Alfred H. Clifford, Tulane University, New Orleans, Texas. The other invited speakers are: Donoho, Fan, Goetze, Liu, Mykland, Rice, Ritov, Romano, Shao, Stoker, van der Vaart, van Zwet, Wellner. Clifford lecturer: Bickel.

April 23-24, 1999: Invited to be the panel discussant for small conference (four invited speakers) on "Informative missing data", Texam A& M University.

August 8-12, 1999: Invited Discussant and Speaker, Joint Statistical Meeting ASA, Baltimore.

March 12-17, 2000: Invited for Stochastics in Biology Conference, Oberwolfach, Germany.

March 19-22, 2000: Organiser and speaker of session "Causal Inference" of joint IMS/ENAR meeting, Chicago.

May 15-20, 2000: Invited speaker Survival Analysis session of the 5-th World Congress of the Bernoulli Society for Probability and Mathematical Statistics, Guanajuato, Mexico.

August 13-17, 2000: Invited speaker Joint Statistical Meeting ASA.

August 9-12, 2001: Local organiser and Invited Speaker, Causal Inference Conference, Salt Lake City.

March 28, 2001: Invited speaker in session Empirical Processes in Biostatistics, ENAR/IMS.

June 5, 2001: Invited speaker in the Genetic and Environmental Toxicology Association (GETA) meeting, Oakland.

January 10-12, 2002: Invited speaker in the Fourth Annual Winter Workshop "Classification and Clustering", The Department of Statistics of the University of Florida, Gainesville, Florida,

May 13-17, 2002: Invited speaker in session on Missing Data for the XXXIViemes journees de statistique organized by Louvain-la- Neuve and Brussels, Brussels, Belgium.

June 14-16, 2002 Invited speaker in special invited session on Survival Analysis, Fourth Biennial International Conference on Statistics, Probability, and Related Areas, Northern Illinois University of DeKalb, Illinois.

June 23-26, 2002 Invited speaker in session "Survival Analysis" at the 2002 WNAR meeting. Organiser of session "Recent Advances in Semiparametric Models".

July 14-18, 2002 Invited speaker in the Sixth Multi-Conference on Systematics, Cybernetics and Informatics, Orlando, Florida.

July 7-10, 2002 Invited speaker at the 2002 Taipei International Statistical Symposium and Bernoulli Society EAPR Conference.

August 11-15, 2002 Invited speaker JSM meeting in session "Statistical Analysis of Microarray Data", New York.

September 3-6, 2002 Organiser and speaker in joint IMS/RSS research session on "the Statistical analysis of microarray data" at the Royal Statistical Society meeting in Plymouth, UK.

September 9-20, 2002 Invited to the workshop "On high-dimensional data: $p >> n$ in mathematical statistics and bio-medical applications" organized by the International Lorentz Center, Leiden University, and the Department of Medical Statistics, Leiden University Medical Center.

February 20-22, 2003 Invited speaker workshop on Statistical Aspects of Microarray Data, Aarhus University, Denmark.

March 30-April 2, 2003 Invited speaker in session "Statistical Inference of Genomics Data" of ENAR-meeting, Tampa, Florida.

May 21-24, 2003 International Conference on Reliability and Survival Analysis Department of Statistics, USC, Columbia, South Carolina.

August 3–7, 2003 Invited speaker in session "Statistics and Genomics", Joint Statistical Meeting, San Francisco.

September 29-October 3, 2003 Invited speaker in workshop Statistical Methods for Gene Expression: Microarrays and Proteomics, Minneapolis, Minnesota.

October 30-31, 2003 Invited speaker workshop on Genomic approaches to microarray data analysis, organized by the European Science Foundation, Madrid, Spain.

March 22-26, 2004 Invited speaker for the IX Congreso Latinoamericano de Probabilidad y Estadistica Matematica (CLAPEM) (16 one-hour talks), Montevideo, Uruguay.

May 10-11, 2004 Invited speaker for International Conference on Analysis of Genomic Data, the Harvard Medical School, May 10-11, 2004, Boston.

June 27-30, 2004 Organizer and speaker of session on Model Selection of the WNAR/IMS meeting at the University of New Mexico in Albuquerque.

August 14-19, 2004 Organizer (with Jennifer Bryan and Sandrine Dudoit) of workshop on Statistical Science for Genome Biology, Banff International Research Station (BIRS), Banff, Canada. http://www.pims.math.ca/birs/workshops/2004/04w5519/

December 15-17, 2004 Invited Keynote speaker (two 80 minute presentations), 2004 Taipei Symposium on Statistical Genomics, hosted by the Institute of Statistical Science, Academia Sinica, Taipei, Taiwan.

January 12-13, 2005 Attending AIDS conference "Emerging Concepts in Antiretroviral Therapy" at the University of California, San Francisco.

April 18-22, 2005 Invited speaker at workshop "Biomarkers in HIV and Cancer Research", the Mathematical Biosciences Institute (MBI), Ohio State University.

July 24-28, 2005 Organizer of session on STATISTICAL CHALLENGES IN GENOMICS of the 25rd European Meeting of Statisticians, Oslo, Norway.

June 27-30, 2005 Invited speaker Symposium on Multiple Testing, SER-CSEB 2005 Joint Meeting, Epidemiology without borders, June 27-30.

August 7-14, 2005 Organizer of "Recent advances in causal inference" Session and invited speaker in Multiple testing session, Joint Statistical Meeting, Minneapolis.

August 14-17, 2005 Invited speaker workshop on Functional data analysis of biomarkers, UC Davis, CA.

October 5-9, 2005 Invited speaker, Workshop on Machine Learning, Eurandom, Eindhoven.

March 19-22, 2006 Invited speaker in session "Recent developments in survival analysis of interval-censored data" for ENAR 2006 in New Orleans.

August 8-13, 2006, Invited speaker in session "Semiparametric Inference", Joint Statistical Meeting, Seattle.

August 8-13, 2006, Invited speaker in session on censored data, Dan Rubin gave talk A doubly censored robust censoring unbiased transformation.

July 8-13, 2006, Invited speaker workshop "Computational and Statistical Genomics", BIRS, Banff, Canada.

June 27-30, 2006, Invited speaker WNAR/IMS meeting, Semiparametric Inference and High Dimensional Data.

May 10-12, 2006 Invited Speaker HIV Resistance Workshop, Harvard, Boston.

May 18-20, 2006 Invited Speaker Frontiers of Statistics Workshop in honour of 65-th birthday of Peter J. Bickel.

April 2007 Invited to be on local organizing committee of the Eleventh Annual International Conference on Research in Computational and Molecular Biology, RECOMB 2007, Berkeley.

2007 Invited speaker session in 2007 ENAR meeting, Dan Rubin gave talk about Targeted Maximum Likelihood Learning.

2007 Invited speaker session in 2007 WNAR meeting, Dan Rubin gave talk on Targeted Maximum Likelihood and Two-Phase Designs.

July 9-11, 2007 Invited speaker for MCP 2007, 5-th International Conference on Multiple Comparison Procedures, in Vienna, Austria (www.mcp-conference.org).

July 31-August 5, 2007 Invited discussant in causal inference session at JSM 2007 (invited speakers: Judea Pearl, Don Rubin, Paul Holland).

November 5-11, 2007 Taught a workshop with my Ph.D student Cathy Tuglus on Biomarker Discovery at the BASS VIII meeting, Savannah, Georgia.

March 2008 Invited for Workshop Challenges with High Dimensional Data, Oxford University.

June 30-July 2, 2008 Invited speaker at the first International Symposium on Biopharmaceutical Statistics (ISBS), Shanghai, China. The session's title is "Advanced methods in causal inferences based on observational data".

March 13-14, 2008 Workshop on oversight of FDA on cancer drug development, organized by American Enterprise Institute, Washington, DC, Moderator and speaker on Statistical Challenges.

TEACHING

Spring 1994, Stat 102 Introduction to Theoretical Statistics, Department of Statistics, UC Berkeley.

Fall 1994, 1995, 1996: PH 142A Introduction to Probability & Statistics in Biology and Public Health, School of Public Health, UC Berkeley.

Spring 1995, PH 243B Special Topics in Biostatistics: Asymptotic Methods in Statistics, School of Public Health, UC Berkeley.

Spring 1996, PH 243B Special Topics in Biostatistics: Censored Data and Regression, School of Public Health, UC Berkeley.

Summer (July) 1996, PH 142AB, Introduction to Probability & Statistics in Biology and Public Health, Summer course, School of Public Health, UC Berkeley.

Spring 1997, Ph 240B Biostatistical Methods: Survival Analysis, School of Public Health, UC Berkeley.

Spring 1999, Ph 243B Special Topic in Biostatistics: Causal Inference, School of Public Health, UC Berkeley.

Spring 2000, Ph 240B Biostatistical Methods; Survival Analysis, School of Public Health, UC Berkeley.

Spring 2000, Computational Biology Seminar (see http//www.stat.berkeley.edu/ laan for a list of speakers and abstracts), School of Public Health, UC Berkeley.

Spring 2001, PH 243A, Censored Data, School of Public Health, UC Berkeley.

Fall 2001, PH 243B, Statistical Techniques in Computational Biology, School of Public

Health, UC Berkeley.
Spring 2002, PH 240B Biostatistical Methods; Survival Analysis, School of Public Health, UC Berkeley.
Fall 2002, PH 243, Causal Inference, School of Public Health, UC Berkeley.
Fall 2002, BE 190C, Statistical methods for clustering, regression and prediction as part of this course on Computational Biology for undergraduates.
Spring 2003, Seminar in Genomics plus Lectures on Cross-validation methodology.
Fall 2003, 2005, 2007: Multivariate Statistical Methods in Genomics: Multiple Testing and Loss Function Based Estimation.
Spring 2004, 2006, 2008, Survival Analysis.
Fall 2004, Fall 2006 Causal Inference in Longitudinal Studies.
Spring 2005, Theoretical Statistics 210B for Ph.D students in the Department of Statistics and Biostatistics.

REFEREE, REVIEW, EDITORIAL WORK

Associate Editor, Electronic Journal of Statistics (2007-)
Associate Editor, Statistics Surveys (2005-).
Associate Editor, Lifetime Data Models, 1996-2000.
Associate Editor, Biometrics, 1997-2003.
Associate Editor, Journal of Statistical Planning and Inference, 2001-present.
Associate Editor, Statistical Applications in Genetics and Molecular Biology, 2002-present.
Associate Editor, Annals of Statistics, November, 2003-present.
Associate Editor, Founding, International Journal of Biostatistics (2004-present).
Member of Editorial Board of ASA-SIAM (Society of Industrial and Applied Mathematics) book series.
Associate Editor, Journal of the American Statistical Association, 2006-present.
Associate Editor, Journal of Statistical Methods in Medical Research, 2006-present.
Co-Editor (with Sandrine Dudoit, and Robert Gentleman) of Special Issue on Genomics of Journal of Multivariate Analysis (2003).
Referee for the *Annals of Statistics*: (1993) 4 papers (1994) 4 papers, (1995) 5 papers, (1996) 4 papers, (1997) 1 paper, (1999) 1 paper, (2000) 2 paper, (2001) 2 papers, (2002) 1 paper, (2003), 2 papers, (2004), 2 papers.
Referee for *Journal of National Cancer Institute*: 1 paper (2006), 1 paper (2007).
Referee for *Statistica Neerlandica*: (1994) 2 papers, (1997) 1 paper (1998) 1 paper, (1999) 2 papers.
Referee for *Scandinavian Journal of Statistics*: (1994) 1 paper, (1995) 2 papers, (1996) 1 paper, (1998) 2 paper, (1999) 1 paper, (2000) 1 paper, (2002) 1 paper, (2003) 1 paper, (2004) 1 paper.
Referee for *Bernoulli*: (1995) 2 papers, (1997) 1 paper, (1999) 1 paper.
Referee for *Biometrical Journal*: (1998) 1 paper, (1999) 1 paper, (2002) 1 paper.
Referee for *JASA*: (1994) 1 paper, (1995) 2 papers, (1996) 3 papers, (1997) 2 papers, (1998) 2 papers, (1999) 4 papers, (2000) 2 papers, (2001) 2 papers, (2002) 3 papers, (2003) 2 papers, (2004) 2 papers.
Referee for *1994 Proceedings of International Research Conference on Lifetime Data Models in Reliability and Survival Analysis*: 2 papers.
Referee for *Biometrika*: (1996) 3 papers, (1997) 2 papers, (1998) 1 paper, (1999) 3 papers,

(2000) 2 papers, (2001) 2 papers, (2002) 1 paper, (2003) 2 papers, (2004) 2 papers.
Referee for *Biometrics*: (1997) 7 papers, (1998) 7 papers, (1999) 5 papers, (2000) 3 papers, (2001) 6 papers, (2002) 4 papers, (2003) 4 papers.
Referee for *1995 Proceedings Seattle Symposium on Biostatistics*: 1 paper.
Referee for *Statistics in Medicine*: (1996) 1 paper.
Referee for *Lifetime Data Models*: (1995) 2 papers, (1996) 4 papers (1997) 2 papers, (1998) 2 papers, (1999) 2 papers, (2002) 1 paper.
Referee for *Australian Journal of Statistics*: (1996) 1 paper (1998) 1 paper, (1999) 1 paper.
Referee for *Statistical Science*: (1996) 1 paper.
Referee for *Journal of Multivariate Analysis* (1998) 1 paper, (1999) 1 paper.
Referee for *Technometrics*: (2000) 1 paper.
Referee for *Journal of Statistical Planning and Inference* (2000) 1 paper, (2001) 1 paper, (2002) 2 papers, (2003) 2 papers, (2004) 4 papers.
Referee for *Annals of Institute of Statistical Mathematics*: (2002) 1 paper.
Referee for *Computational Biology*: (2001) 1 paper.
Referee for *Genome Biology*: (2001) 2 papers, (2004) 1 paper.
Referee for *Biostatistics*: (2000) 2 papers, (2001) 2 papers.
Referee for *Journal of Applied Biosystems*: (2001) 2 papers.
Referee for *Bioinformatics*: (2002) 2 paper, (2003) 4 papers, (2004) 2 paper.
Referee for *Proceedings of the National Academy of Science*: (2002) 2 papers, (2003) 2 papers.
Referee for *Canadian Journal of Statistics*: 2 paper (2003), 1 paper (2004).
Referee for *Journal of the National Cancer Institute*: 1 paper (2003).
Referee for *The American Journal of Epidemiology*: 1 paper (2003), 2 papers (2004). Referee for *Journal of the Royal Statistical Society, Series B*: 1 paper (2004).
Proofread an introductory book in Statistics of Prof. Dr. E. Lehmann (1997).
Book review (1997), "Probabilistic Causality in Longitudinal Studies," for Statistics in Medicine.
Book review (1997), "Problems and Solutions in Biostatistical Theory", Duxbury Press, Brooks/Cole Publishing Company.
Book review (1998), Introduction in Biostatistics, Text book, Duxbury Press, Brooks/Cole Publishing Company.
Book review (1999), Statistical Consulting: A Guide to Effective Communication, by Janice Derr, Duxbury Press, Brooks/Cole Publishing Company.
Book review (1999), Fundamentals of Biostatistics, Fifth Edition, by B. Rossner.
Book review (2004), Introduction in Computational Biology
Book review (2004), The False Discovery Rate, by Yoav Benjamini, Cambridge University Press
Reviews of NSF Research Proposals (1998, 2 in 1999, 2 in 2000)
Review of NSF Research Proposals, Washington, October 17-19, 2002.
Review of research proposal for Center in Genetic Epidemiology, University of California, Irvine, (2002).
Review of Research proposals of the National Science Foundation of the Netherlands: (2003).
Review of NIH grants, 2006.

DISSERTATION ADVISING

1) Thesis advisor of Ph.D student in Biostatistics Alan Hubbard (1998), "Applications of

Locally Efficient Estimation in Censored Data Models" (Biostatistics Student of the year, 1998, and received the Evelyn Fix Award from the Department of Statistics)
Alan Hubbard is Adjunct-Professor, Division of Biostatistics, University of California, Berkeley.
2) Thesis advisor of Ph.D student in Biostatistics Derick Peterson (1998),"On Nonparametric Estimation and Inference with Censored Data, Bandwidth Selection for Local Polynomial Regression, and Subset Selection in Explanatory Regression" (Student of the year, 1998)
Derick Peterson is Assistant Professor, Department of Biostatistics, School of Medicine, University of Rochester, Rochester .
3) Thesis advisor of Ph.D student in Biostatistics Chris Quale (2001), "Estimation of the Bivariate Survival Function with Censored Truncated Data and Hazard Estimation Based on Interval Censored data". Chris Quale is Statistical Consultant at University of California, San Francisco.
4) Thesis advisor of Ph.D student in Biostatistics Maja Pavlic (2001), "Statistical Methods for Analysis of Recurrent Event Data" and "Estimation of the Number of Components in a Mixture of Normals". Funded by Biotech Company Genentech. (Student of the year, 2001) Maja Pavlic is Scientist at Pharmaceutical Company Johnson Johnson.
5) Thesis advisor of Ph.D student in Biostatistics Jennifer Bryan (2001), "Statistical Inference for Gene-expression Analysis from cDNA Microarrays", (Biostatistics Student of the year, 2001, and received the Evelyn Fix Award from the Department of Statistics). Jennifer Bryan is Assistant-Professor in the Statistics Department and the Department of Biotechnology at the University of Britisch Columbia, Vancouver.
6) Thesis advisor of Ph.D student in Biostatistics Tanya Henneman (2002), "Causal Inference in Point Treatment Studies with Applications" (funded by Chancellors Opportunity Scholarship, Student of the Year, 2002). Tanya Henneman is a Post-doc in the Biostatistics Department of the University of California, Los Angeles.
7) Thesis advisor of Ph.D student in Biostatistics Alan Brookhart (2003), "Computer Intensive Methods in Statistics", Alan Brookhart is Instructor of Medicine, Harvard Medical School, and Biostatistician, Division of Pharmacoepidemiology and Pharmacoeconomics, Brigham and Women's Hospital.
8) Thesis advisor of Ph.D student in Biostatistics Sunduz Keles (2003), "Statistical Methods for Detection of cis-regularitory binding sites", "Double robust estimation of the Bivariate Survival Function in longitudinal studies", "Model selection in regression for censored data". (Student of the year, 2003, Public Health Award 2003) Sunduz Keles is Assistant Professor, Department of Biostatistics and Statistics, University of Wisconsin, Madison.
9) Thesis advisor of Ph.D student in Biostatistics Katherine Pollard (2003), "Computationally Intensive Statistical Methods for Analysis of Gene Expression Data". (Student of the year, 2003, and received the Evelyn Fix Award from the Department of Statistics) Katherine Pollard has a Post Graduate Researchship in the Lowe and Haussler labs (50/50 split) at University of California, Santa Cruz. Projects will include: comparative genomics (e.g.: chimp and human, different species of extreme hyperthermophilic Archaea), detection of RNA genes, phylogenetic classification based on cross-species DNA hybridization, and functional genomics.
10) Thesis advisor of Ph.D student in statistics Zhuo Yu (2003), "Causal inference in longitudinal studies" (received the Erich Lehmann Award from the Department of Statistics, 2003). Zhuo is a research biostatistician at Bristol-Myers Squibb company.
11) Annette Molinaro, "Data Adaptive Prediction in Cancer Research" (2004). (Biostatis-

tics Student of the year 2004 and received the Evelyn Fix Award from the Department of Statistics) Funded by grant from the Lawrence Livermore National Laboratory which provided access to their super-computers.
12) Romain Neugebauer, "Double Robust Estimation in Causal Inference Models and its Application in the Analysis of Longitudinal Air Pollution Studies" (2004). (Biostatistics Student of the year 2004, and received the Erich Lehmann Award from the Department of Statistics). Funded by Prof. I. Tager (epidemiology grant) and LSI/Chiron grant.
13) Biao Xing, "Fitting Multinomial mixtures to Detect cis-Regulatory Binding Sites and Pathway Analysis in Computational Biology". Graduated Spring 2005, Scientist at Genentech.
14) Yue Wang, "Data Adaptive Estimation in Causal Inference", Started Fall 2002, graduated Spring 2006.
15) Sandra Sinisi, "Data Adaptive Prediction with the Deletion/Substitution/Addition Algorithm: Applications in Genomics", started Fall 2002, graduated Spring 2006.
16) Merrill Birkner, started fall 2003, graduated Spring 2006, funded by Genomics Training grant, Scientist at Genentech.
17) Maya Petersen (joint with Prof. Art Reingold, Epidemiology), started 2004, graduated 2006. 18) Ed Bein (joint with Alan Hubbard), graduated Fall 2006.

Currently, I am advising the following Ph.D students:
19) Dan Rubin, "Efficient Estimation in Semiparametric Models", started fall 2003,
20) Oliver Bembom, started fall 2004, will graduate January 2008.
21) Kelly Moore
22) Cathy Tuglus
23) Eric Polley,
24) Sherri Rose (started, 2007)

HOSTING VISITING PROFESSORS

Miller Professorship for Professor Dr. J.M. Robins (Harvard) (1999-2000), Biostatistics, UC Berkeley.
Miller Professorship for Professor Dr. A.W. van der Vaart (Amsterdam) (2000), Biostatistics, UC Berkeley.
Visiting Professor Dr. D. Scharfstein (Johns Hopkins) (2000), Biostatistics, UC Berkeley.
Visiting Professor Dr. M. Wegkamp (Florida State University) (2006), Biostatistics, UC Berkeley.

STUDENT RELATED ACTIVITIES

Graduate Advisor for MA and Ph.D. students in the Group in Biostatistics, July 1, 1994 until present.

DISSERTATION COMMITTEE MEMBERSHIPS

Member, dissertation committee of Ph.D. student in Epidemiology, James Carl Scott.
Member, dissertation committee of Ph.D. student in Epidemiology, William Connell McFarland, completed December 1995.
Member, dissertation committee of Ph.D. student in Nutrition, Jean C. Norris, School of Public Health, completed December 1996.
Member, dissertation committee of Ph.D. student in Biostatistics, Biao Lu, Group in Biostatistics, completed December 1995.

Member, dissertation committee of Ph.D. student in Epidemiology, Claudia Hopenhayn-Rich, School of Public Health, completed May 1996.
Member, dissertation committee of Ph.D. student in Epidemiology, Kathryn Lacey de Riemer, School of Public Health, completed Fall 1999.
Member, dissertation committee of Ph.D. student in Epidemiology, Williamson Ziegler Bradford, School of Public Health, completed Fall, 1998.
Chair, dissertation committee of Ph.D. student in Biostatistics, Derick Peterson, Group in Biostatistics, completed May 1997.
Chair, dissertation committee of Ph.D. student in Biostatistics, Alan Hubbard, Group in Biostatistics, completed May 1997.
Member dissertation committee of Ph.D. student in Statistics, Zhiyu Ge, Department of Statistics, completed May 1999.
Member dissertation committee of Ph.D. student in Statistics, Hui Wang, Department of Statistics (2000).
Member dissertation committee of Ph.D. student in Epidemiology, Sterling Claiborne Johnston (2000).
Member dissertation committee of Ph.D. student in Biostatistics, Alexandre Bureau (2001).
Member dissertation committee of Ph.D. student in Molecular Biology, Derek Chiang (2002), Sequence-based rules for predicting gene expression in saccharomyies inferred from comparative genomics.
Member dissertation committee of Ph.D. student in Biophysics, Alan Moses (2002).

Ph.D-MA COMPREHENSIVE EXAM COMMITTEE MEMBERSHIPS

Chair, Ph.D. Qualifying Examinations of Douglas Oman (1995), Charissa Hogeboom (1996), Leo Deegan (1997), Alexandre Bureau (1999), Houston Gilbert (2006), Group in Biostatistics.
Member, Ph.D. Qualifying Examinations of Derick Peterson (1995), Alan Hubbard (1996), Chris Quale (1997), Maja Pavlic (1999), Jennifer Bryan (1999), Tanya Henneman (1999), Sunduz Keles (2000), Katherine Pollard (2000), Zhuo Yu (2001), Romain Neugebauer (2001), Biao Xing (2002), Alan Brookhart (2002), Ed Bein (2006), Oliver Bembom (2006), Maya Petersen (2006), Kasper Hansen (2006), Group in Biostatistics.
Member, Ph.D. Qualifying Examinations of Adrian Custer (1997), Ph.D. student in Entomology, Williamson Bradford (1997), Ph.D. student in Epidemiology, Sarah Mansfield (1998), Ph.D. student in Environmental Science, Policy and Management, Lara Jean Rachowicz (2001), Ph.D. student in Integrative Biology, John Peter Novembre (2001), Ph.D student in Integrative Biology, Derek Chiang (2002), Ph.D. student in Molecular Cell Biology, Alan Moses (2002), Ph.D. student in Biophysics, Greg Sim (2003), Ph.D. student in Biophysics.
Member of Ph.D. Qualifying Exam Committee of Hui Wang, Department of Statistics (1999), Richard Bourgon (2004), Department of Statistics.
Member, topic exam committee, and assisting in guidance of Ph.D. student in Biostatistics, Michal Weingart, Group in Biostatistics (1994).
Chair, MA thesis committee, Sunduz Keles (2000), Alan E. Hubbard (1995), Group in Biostatistics.
Member of Masters Comprehensive Exam committee, Group in Biostatistics: Keith Betts and Kelly Moore (2005); Huaxia Lin (2004); Yun Zhuo (2002); Katherine Pol-

lard, Susan Alber (2000); Jennifer Bryan, Liu Hao, Alexandre Bureau (1998); Deborah McNaughton, Derry Ridgway, Alan Brookhart (1997); Ruby Lin, Maxine Lin, Sarah Lee (1996); Tony Ye, Charissa Hogeboom (1995).

POST DOCTORAL ADVISING

1997-1998: Chris Andrews, NSF Postdoctoral Fellow in Biostatistics.
2001-2002: Joerg Rahnenfuhrer (Germany), Postdoc in Biostatistics.
2001-2002: Chris Andrews, NSF Postdoctoral Fellow in Biostatistics.
2002-2003: Jonas Larson, Denmark Postdoctoral Fellowship.
2003-2004: Sunduz Keles, Postdoctoral Fellow NIH Genomics Grant (joint with Sandrine Dudoit).
2003-2005: Blythe Durbin, Postdoctoral Fellow (joint with Sandrine Dudoit).
2004-2007: supervise (jointly with Ira Tager) Romain Neugebauer, Assistant Researcher.
2006-: Postdoctoral Fellow, Michael Rosenblum.
2007: Advisor of visitor Ph.D student G. Reevens, Free University of Amsterdam.
2007- Postdoctoral Fellow, Hui Wang.

COMMITTEES

Member of COPPS Award Committee (2006-2008)
Member of advisory board of environmental health grant with P.I. Prof. Dr. James Robins.
Member of Spiegelman Award Committee (2005)
Chair of Spiegelman Award Committee (2006)
Member of Myrto Lefkopoulou Award Committee (2006)
Member, Faculty Advisory Committee for the QB3 Berkeley Computational support and Biological Data Management Core Facilities.
Member of external Advisory Board Breast Cancer SPORE, P.I. Joe Gray, UCSF Cancer Center (2006-2008).
Member of Advisory Board, Center Grant, Fred Hutchinson Cancer Research Center (2003-2006). Member of Advisory Board of Systems Biology Center at K.U. Leuven (Belgium), 2006-2008.
Member of Advisory Board, of the Research Fund of K.U. Leuven (2006-2007).
Chair, Promotion committee (2005-2006).
Member, Graduate Committee, Statistics Department (2004, 2005).
Member, Course committee, Statistics Department, 2005-2006.
Chair, Committee for Designated Emphasis Computation & Biostatistics for the Statistics Department (2004, 2005).
Member, Search Committee, faculty position in Computational Biology (2004).
Member, Search Committee, faculty position in Micro Biology (2005-2006).
Member of Tenure-Track committee (2004).
Member of Faculty Council, School of Public Health (2003, 2006).
Member, search committee for Genetic Epidemiologist, School of Public Health (2003).
Member, Admissions Committee, Designated Emphasis in Computational Biology (2003-present).
Member of the Life Sciences Information Technology Research Council of the Industry-University Cooperative Research Program (2001-present).
Chair, Campus Ad Hoc Committee, recruitment in Computational Biology (2002).
Member, Campus Ad Hoc Committee, promotion to tenured Associate Professor (2006).

President Elect Biostatistics of the Bay Area Chapter of the American Statistical Association (2000-2001).
Member of Mid-Career committee (2002).
Member of committee for organising the Computational Biology Effort on campus (2000).
Member of the Regional Committee of the Western North American Region (WNAR) section of the International Biometrics Society (2000).
Vice President Biostatistics of the Bay Area Chapter of the American Statistical Association (1998-1999).
Member, School of Public Health Search Committee for Professor of Biostatistics, 1996-97 and 1997-98
Chair, School of Public Health Search Committee for Professor of Biostatistics, 1998-1999, 2000-2001
Member of Curriculum Committee, School of Public Health, 1996,1997, 1998, 1999
Member of Dr. P.H. Management Committee, School of Public Health, 1996, 1997
Member of Research Committee, School of Public Health, 1996, 1997, 1998
Member of Review Committee for Department of Demography, University of California, Berkeley, 2000.
Member of the Board of Directors of the Department of Mathematics, Utrecht University, 1993
Member of the committee "Teaching load of Utrecht Ph.D. students", 1991

SPECIAL COLLABORATIONS

A: Collaboration with Prof. Dr. J.M. Robins, Professor of Epidemiology and Biostatistics, Harvard School of Public Health, on research in methods and theory for the analysis of longitudinal studies.
B: Investigator on grants with Prof. Dr. J. Colford, Epidemiology (1998-2000):
1) "Early detection of population level survival changes among AIDS patients."
2) "Application of adjusted Kaplan-Meier estimators to adjust for reporting delays in population level survival changes in AIDS."
3) Drinking water mutagenicities.
C: The statistician on grant "Fresno Asthmatic Children and Environmental Study" (FACES) of Prof. Dr. I. Tager, Epidemiology (2000-2005). "The Effect of Air Pollution on Development of Asthma in Children". The funding agency is the California Air Resource Board (ARB)
D: Collaborator on the Biostatistics/Informatics core of the Breast Cancer program project titled "Molecular/Cellular Predictors of Breast Cancer Prognosis" with P.I. Prof. Dr. D. Moore, California Medical Center, UCSF.
E: Collaboration with Prof I. Tager and Prof. B. Satariano, Epidemiology, UC Berkeley, on determining causal effect of activity on death and other health outcomes in an elderly population (SONOMA Project).
F: Investigator on SIMS-NIDA-Grant "Analytical Methods for Observational Studies in Drug User Cohorts" (1997-1999). This grant involves a collaboration between Berkeley and the Johns Hopkins University, Baltimore.
Principal Investigator of Berkeley site: Prof. Dr. J. Rice, Department of Statistics, University of California, Berkeley.
G: Collaboration with lab of cell biologist Prof. Dr. M. Eisen, Lawrence Berkeley National Laboratory on the detection of binding sites in the regularitory region of organisms such

as yeast (2000 until present).
H: Collaboration with Prof. Dr. I. Tager and Dr. L. Louie (Children Hospital Oakland) on Tools for genetic epidemiology of longevity in Elderly population. In this study we study interactions between causal effects of activity and single nucleotide polymorpisms on time until disability and survival.
I: Collaboration with Dr. L. Louie, Dr. A. Smith and UCSF to study interactions between causal effects of drinking water and single nucleotide polymorphisms on skin lesions.
J: Collaboration with computational and lab biologist Dr. S.E. Brenner on methods for protein structure prediction from sequence.
K: Collaboration with epidemiologist Prof. I. Tager on "A Pilot Study to Quantify Health Benefits of Incremental Improvements in Air Quality" funded by the Air Resource Board.
L: Collaboration with Dr. J. Gray, UCSF, Cancer Center, Annette Molinaro, D. Moore, on the analysis of genomic data in cancer research.
M: Collaboration with UCSF Medical researchers, MD and Ph.D student M. Petersen, A. Reingold on the analysis of the Study on the Consequences of the Protease Inhibitor Era (SCOPE) (2004-present).
N: Collaboration with Kaiser and Stanford (Dr. J. Fessels and Dr. B. Shafer) on understanding the mutations of the HIV-virus causing resistance of the virus to drugs, Kaiser/Stanford data (1000+ patients with viral sequences, outcomes etc.).

ACADEMIC AWARDS

February 23, 1991:

Scholarship of the VSB Foundation presented by the Chairman of the Board of Directors at the opening of the 355th anniversary of the University of Utrecht.

March 27, 1991:

Second Prize in the contest of the best (Netherlands) Masters thesis in Statistics or Operational Research (1989-1990) presented by the V.V.S.
Publication of a summary of the masters thesis in *Statistica Neerlandica*.

July 1994:

Martin Sisters Chair, School of Public Health, UC Berkeley, 3 years ($15,000 per year).

1995:

Two faculty grants of $3000 each, Committee on Research, UC Berkeley.

1995, 1996:

Two junior faculty mentor grants, $750 and $1000, Office of the Chancellor, UC Berkeley.

1996-97:

Hellman Family Faculty Award, $20,000, Office of the Chancellor, UC Berkeley.

1996:

Ph.D thesis selected to be published in book form (CWI-tract) by the Centre of Mathematics and Computer Science, Amsterdam.

June 1996:

FIRST Award, 5 year NIH grant, 1996-2001, $498,726 (total costs). Title: Locally Efficient Estimation with High Dimensional Data Structures. Score in top 7 %.

June 1999:

NIAID Award, 3 year grant, 1999-2002. $357,000 (total costs).
Score in top 13%. Title: Causal Inference and Longitudinal Aids Studies.

September 2000, 3 year grant:

LLNL 3-year grant, 2000-2003. Title:"Statistical Inference from Microarray Data with Applications in Breast Cancer Research".

September 2000, 3 year grant:

Academic/Industry grant of $450,000 from Life Sciences Institute (LSI) with industrial partner Chiron. The grant received the highest score ever (jointly written with Ph.D student K. Pollard). The grant has also been selected to be covered by an article, photos, and video, on the web-site of the Life Science Institute.

September 2002:

Principal Investigator of NIH Award, 5 year grant of $887,664, 2002-2006. Title: "Statistical Analysis of Longitudinal Studies with Gene Expression Data".

September 2002:

Co-Investigator, joint UCSF/Berkeley NIH Award, 3 year grant, 2002-2005. Title: "Statistical Analysis of Complex AIDS Cohorts".

July 2004:

Principal Investigator of NIH Award, 2004-2007 ($1,000,000). Title: "Data Adaptive Estimation in Epidemiology and Genomics".

June 2004:

2004 Mortimer Spiegelman Award. The Mortimer Spiegelman Award was established in 1969 by his family and is awarded annually to a young statistician for outstanding contributions in health statistics. It is presented by the Statistics Section of the American Public Health Association (APHA).

September 2004:

Selected to be on the cover in portrait-format on one of the five well-respected Tan Applied Mathematics series textbooks, edited by Applied Mathematics for Brooks/Cole, a division of Thomson Higher Education. Quotation from invitation letter: "Famous" applied mathematicians will be featured on the cover of each of the five texts in the hope that seeing a successful applied mathematician will motivate readers (students) of these texts to learn and to use the applied mathematical skills they acquire in their future careers." Based on this idea, the executive editors of the Tan series have invited me to be featured on one of the five covers of the upcoming new edition.

April 11, 2005: **2005 van Dantzig Price**. This is the highest award in Statistics and Decision Theory in the Netherlands. Once in every 5 years the Dutch Statistical Association presents the Van Dantzig Award to either a dutch statistician or operation researcher under the age of 40.

The award is in memory of prof. dr. D. van Dantzig, the founder of Dutch mathematical statistics. The former recipients are van Zwet (1970, Statistics), van Meurs (1975, Statistics), Hordijk (1980), Rinnooy Kan (1985), Gill (1990, Statistics), Ridder (1995), and van der Vaart (2000, Statistics).

August, 2005 **2005 Snedecor Award** joint with Nick Jewell. We received the Snedecor Award for our paper "Case-control current status data" in Biometrika, 2004, v91, pp. 529-541. The criteria for the award are to an individual(s) who has been (1) instrumental in the development of statistical theory in biometry, and (2) who has a

noteworthy publication in biometry within three years of the date of the award. So, the award is also a tribute to the overall contribution to biometry.

The award consists of a plaque, a citation, and a cash honorarium. It was presented at the COPSS Awards and Fisher Lecture session at the Joint Statistical Meetings (JSM).

August, 2005 **2005 COPSS Award**. The Committee of Presidents of Statistical Societies (COPSS) Awards are jointly sponsored by the American Statistical Association, the Institute of Mathematical Statistics, the Biometric Society ENAR, the Biometric Society WNAR, and the Statistics Society of Canada. The Committee of Presidents of Statistical Societies (COPSS) Award is presented annually to a young member of one of the participating societies of COPSS. The award is presented in recognition of outstanding contributions to the statistics profession. The Presidents' Award is granted to an individual who has not yet reached his or her 41st birthday during the calendar year of the award. The award was established in 1976 and consists of a plaque and a cash award.

September, 2005 **2005 Myrto Lefkopoulou Distinguished Lectureship** at the Biostatistics Department, Harvard School of Public Health. The lectureship was established in perpetuity in memory of Dr. Myrto Lefkopoulou, a faculty member and graduate of Harvard School of Public Health. Dr. Lefkopoulou tragically died of cancer in 1992 at the age of 34 after a courageous two-year battle. She was deeply beloved by friends, students, and faculty.

Each year the Myrto Lefkopoulou Lectureship is awarded to a promising statistician who has made contributions to either collaborative or methodologic research in the applications of statistical methods to biology or medicine, and/or who has shown excellence in the teaching of biostatistics. Ordinarily, the lectureship is given to a statistician who has earned a doctorate in the last fifteen years. The lecture is presented to a general scientific audience as the first Department colloquium of each academic year. The lectureship includes travel to Boston, a reception following the lecture, and an honorarium. Previous recipients of the Lefkopoulou Memorial Lectureship have been Marie Davidian, Danyu Lin, Bradley P. Carlin, Steven N. Goodman, Ronald Brookmeyer, Michael Boehnke, Trevor Hastie, Hans-Georg Mueller, Giovanni Parmigiani, Kathryn Roeder, and Louise Ryan.

July 1, 2005-2006 UC Berkeley Chancellor Endowed Chair.

Spring, 2006 Miller Professor funded by the Miller Institute, UC Berkeley.

July 1, 2006- Jiann-Ping Hsu/Karl E. Peace Endowed Chair in Biostatistics.

May, 2007 Charles L. Odoroff Memorial Lecture, Targeted Learning of Scientific Questions, Distinguished Lecture Award from Department of Biostatistics, University of Rochester.

July 2007 NIH-Award Targeted Maximum Likelihood Learning and Super Learning in HIV Research (2007-2012), 2.3 million dollar grant. Featured by UC Berkeley Sponsored Project Office as Special Award of the week.

MEMBERSHIPS

International Statistical Institute (ISI)-member (2000).

V.V.S., The Netherlands Society for Statistics and Operations Research.

Bernoulli Society for Mathematical Statistics and Probability.

ASA, The American Statistical Association.
IMS, Institute of Mathematical Statistics.

CONSULTING

1995: Cost-effectiveness of physicians in San Francisco Hospitals for M.D. I. Ahwah: What variables of a patient in an emergency room predict sensible cost best?
1996: Cost-effectiveness of physicians in San Francisco Hospitals for M.D. I. Ahwah: Relation between acuity of a patient and sensible utilization of items by revenue center.
1996: Consultant on studies of the influence of caffeine on birth defects for Laura Fenster, California State Department of Health.
1998: Consultant on NIH grant "A Nonparametric MLE Survival Analysis Module" with P.I. Dr. Y. Zhan, Data Analysis and Products Division, Mathsoft, Inc.
1997: Statistical analysis of relation between monthly budget patient days and monthly actual patient days, Children's hospital, Oakland.
1998: Member of consulting group, consisting of faculty members of the Statistics Department, for statistical problems presented by NSA.
1998: Consultant on Cystic Fibrosis Foundation Project "Effects of Favonoids on Nasal PD in Cystic Fibrosis Patients", Pediatric Clinical Research Center, Children's Hospital, Oakland. Part of this project is concerned with linking the genotype of the Cystic Fibrosis gene to the clinical parameters.
1999-2002: Statistical consultant for CHIRON for analyzing gene expression data; coordination of statistical analysis in the Microarray Research Group at Chiron.
2005-now: Statistical consultant for the Buck Aging Institute, Novato, CA, for the Bioinformatics core. 2007-: Statistical Consultant AmGen.

RESEARCH AREAS: My main research interests are 1) developing statistical methodology and theory for analyzing high dimensional **censored data** structures, 2) statistical methods for **causal inference** in longitudinal studies with both informative treatment assignment and informative censoring and 3) statistical methods for the **analysis of genomic data** in computational biology and medical/epidemiological research, and 4) the application of these methods in collaboration with scientists.

Research in Computational Biology and Genomics: Because of the advances in expression array technology accurate, low cost genome-wide monitoring of mRNAs, proteins and other important bio-molecules in cells throughout an organism, over time and space, are possible. Statistical computer intensive methods have become an integral part of the analysis of cross-sectional and longitudinal studies involving the collection of genomic data such as gene expression, single nucleotide polymorphism, and comparative genomic hybridization measurements across the whole genome. These data structures are extremely high dimensional, the characteristics one aims to learn about the population of interest are complex (i.e., they represent function of high dimensional vectors), and outcomes such as survival are often subject to censoring. In addition, one often aims to learn and test many univariate characteristics simultaneously (e.g., regression coefficient for each gene). Given a method for identifying features (such as clusters) in the data, it is important to have a statistical method presenting the significance level and reproducibility probabilities of these features. We have been working on developing new clustering algorithms, new prediction algorithms for censored and uncensored outcomes based on genomic data, new re-sampling based multiple testing methods and theory, embedding multivariate (data

mining type of) methods into a formal statistical framework and study properties such as consistency of the estimates and the bootstrap in the $n << p$ setting. We also have developed (and theoretically studied) a unified loss-function based approach to data adaptively estimate complex or high dimensional parameters, which relies on general cross-validation methodology to select among candidate estimators, and constructs candidate estimators by minimizing empirical averages of loss functions over subspaces implied by a variety of parameterizations. The methods generalize machine learning to learning of any kind of parameter of a data generating distribution.

CONFERENCE/ ADVISORY COMMITTEES

Local Organizing committee of Causal Inference Conference, Berkeley, 2001.

Organizing committee of Conference on Medical Statistics: Statistical Aspects of Bioinformatics, Oberwolfach, Germany, 2002.

Organizing committee of Banff International Research Station for Mathematical Innovation and Discovery (BIRS) Workshop on Statistical Science for Genome Biology, August 14 - 19, 2004, Canada.

Organizing committee of Banff International Research Station for Mathematical Innovation and Discovery (BIRS) Workshop on Computational and Statistical Genomics, July 8-13, 2006, Canada.

Advisor for the Harvard Program on Causal Inference in Epidemiology and Allied Sciences. The mission of the program is to foster education, research, and collaboration in the development and application of statistical methods for the causal analysis of complex longitudinal data in epidemiology and the allied sciences.

Moderator of Statistics Component at the Workshop on The Genomics to Life Program of the Department of Energy and writer of the corresponding report on future statistical research areas for this program, March 2002, Gaithersburg.

Advisor on NIH studies at the Fred Hutchinson Cancer Center, Seattle, 2001-2004.

Organizing committee Workshop on Statistical Methods in Aids Research, Vaille, Colorado, 2006.

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2. M.J. van der Laan (1995), An Identity for the Nonparametric Maximum Likelihood Estimator in Missing Data and Biased Sampling Models. *Bernoulli 1*, 4, pp. 335–41.
3. R.D. Gill, M.J. van der Laan, J.A. Wellner (1995), Inefficient Estimators of the Bivariate Survival Function for Three Models. *Annales de L'I.H.P. Prob. Stat. 31*, 3, 545–97.
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5. M.J. van der Laan (1996), Efficient Estimation of the Bivariate Censoring Model and Repairing NPMLE. *Annals of Statistics 24*, 2, 596–627.
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9. M.J. van der Laan (1997), Nonparametric Estimators of the Bivariate Survival Function under Random Censoring. *Statistica Neerlandica 51*, 2, 178–200.
10. R.D. Gill, M.J. van der Laan, J.R. Robins (1997), Coarsening at Random: Characterizations, Conjectures and Counter-Examples. *Proceedings of the First Seattle Symposium in Biostatistics*, 1995. D.Y. Lin and T.R. Fleming (editors), Springer Lecture Notes in Statistics, 255–294 (Refereed).
11. N.P. Jewell, M.J. van der Laan (1997), Singly and Doubly Censored Current Status Data with Extensions to Multi-State Counting Processes. *Proceedings of the First Seattle Symposium in Biostatistics*, 1995. D.Y. Lin and T.R. Fleming (editors), Springer Lecture Notes in Statistics, 171–184 (Refereed).
12. M.J. van der Laan (1997), Book review of PROBABILISTIC CAUSALITY IN LONGITUDINAL STUDIES by Mervi Eerola, Springer-Verlag, New York, 1994, *Statistics in Medicine 16*, 23, 2761–62.
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15. M.J. van der Laan, I. McKeague (1997), Efficient Estimation from Right-Censored Data when Failure Indicators are Missing at Random. *Annals of Statistics 26* 164–82.
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57. J. Bryan, Z. Yu, M.J. van der Laan (2004), Analysis of longitudinal marginal structural models, *Biostatistics 5*, 3, pp. 361–80

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