

CURRICULUM VITAE
PER ASLAK MYKLAND

February 2009

Department of Statistics
University of Chicago
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EDUCATION

Ph.D.	University of California, Berkeley, 1989 (Statistics)
M.Sc. (Cand.Scient.)	University of Bergen (Norway), 1984 (Statistics)
B.Sc. (Cand.Mag.)	University of Bergen (Norway), 1983 (Mathematics/Computer Science)
Baccalauréat	Lycée Corneille, Rouen (France), 1979 (série C)

EXPERIENCE

University of Chicago, from 1/2009	Scientific Director, Stevanovich Center for Financial Mathematics
University of Chicago, from 7/2000	Professor, Department of Statistics
Princeton University, 8/2000-6/2001	Visiting Professor, Dept of Economics and ORFE, and Bendheim Center for Finance
University of Chicago, 7/1996-6/2000	Associate Professor, Department of Statistics
University of Chicago, 7/1989-6/1996	Assistant Professor, Department of Statistics
Norwegian Petroleum Directorate, 3/1984-8/1984	Statistical consultant
Chr. Michelsen's Institute, Bergen, 8/1982-6/1983	Research worker (part time)

ACADEMIC SERVICE AND HONORS

Institute of Mathematical Statistics

IMS Council (2001-2005)
IMS Fellowship Committee (2002-2005)
IMS Investment Committee (2004-2008)

Editorial activity

Associate editor of the *Scandinavian Journal of Statistics* (1997-2001)
Associate editor of the *Annals of Statistics* (since 2004)
Associate editor of the *Journal of the Royal Statistical Society Series B* (since 2007)
Associate editor of the *Electronic Journal of Statistics* (since 2007)
Associate editor of the *Econometrics Journal* (since 2008)
Co-editor (with Nour Meddahi and Neil Shephard) of special volume of the *Journal of Econometrics* on realized volatility
Referee for several journals

Honors

Elected Fellow, American Statistical Association, since 1999
Elected Fellow, Institute of Mathematical Statistics, since 1999
Medallion Lecture, Institute of Mathematical Statistics, Banff, 2002

Invited Lectures

More than 110 invited lectures (counting since 1997)

Organized Conferences

The econometrics of high frequency financial data, co-organized with Yacine Aït-Sahalia, Bonita Springs, Florida, June 2005

Realized volatility, with Nour Meddahi and Neil Shephard, Montreal, April 2006

Volatility and high frequency data, with Lan Zhang, Chicago, April 2007

Workshop on finance and statistics, Chicago, April 2008

Financial econometrics and statistics: Current themes and new directions, joint conference Stevanovich Center – Center for Research in Econometric Analysis of Time Series (CREATES), Skagen, Denmark, June 2009, co-organizer

Liquidity, credit risk, and extreme events, joint conference Stevanovich Center – Society for Financial Econometrics, Chicago, October 2009, co-organizer

Other

Review Panels of the National Science Foundation (since 2001)

GRANTS AND FELLOWSHIPS

Source Grant Title	Duration
U.S. National Science Foundation grant DMS 06-04758 “Statistical Inference for High Frequency Data”	2006-2011
U.S. National Science Foundation grant SES 06-31605 “Inference and Ill-Posedness for Financial Hig Frequency Data”	2006-2009
U.S. National Science Foundation grant DMS 02-04639 “Is Deliberate Misspecification Desirable? A Statistical Study of Financial and other Time-Dependent Data”	2002-2007
U.S. National Science Foundation grant DMS 99-71738 “Statistics and Finance”	1999-2002
U.S. National Science Foundation grant DMS 96-26266 “Artificial and Approximate Likelihoods”	1996-1999
U.S. National Science Foundation grant DMS 93-05601 “Expansion and Likelihood Methods for Martingales and Martingale Inference”	1993-1996
U.S. National Science Foundation grant DMS 92-04504 “Statistical Inference from General Models” (co-Principal Investigator)	1992-1993
U.S. National Science Foundation grant DMS 89-02667 “Statistical Inference from General Models” (co-Principal Investigator)	1990-1992
U.S. Army Research Office grant DAAH049510105 “Expansion and Likelihood Methods for Martingales and Martingale Inference”.	1995-1999
Norwegian General Research Council grant research at the University of Bergen 11/84-12/85, study at Berkeley 1/86-12/88	1984-1988
Regent’s fellowship from University of California at Berkeley	1986-1988
Meltzer’s fellowship from University of Bergen	1982-1984

ACADEMIC SERVICE AT THE UNIVERSITY OF CHICAGO

Department of Statistics, University of Chicago:

Joint chairman of the consulting program (1989-1991)

Department Counselor (1995-1999) (department advisor, assignment of courses to faculty and students, management of the program)

Department graduate advisor (1999-2000, and since 2007)

Admissions committee (1992-1995, 2002-2003)

Teaching assignment committee (since 2003)

Misc. ad hoc committees

College, Divisions, University of Chicago:

Physical Sciences Division governing committee (1992-1998)

College Council (1995-1998, and 2004-2007)

Council of the Academic Senate (2005-2008)

Joint organizer of the Financial Engineering Workshop (Business School/Statistics/MathFinance) (1997-2000)

Organizer of the Financial Mathematics Visiting Scholar Program (since 2001)

Joint organizer of the Financial Mathematics Workshop (since 2001)

Financial Mathematics admissions committee (since 2003)

Scientific Committee of the Stevanovich Center for Financial Mathematics (since 2006)

College Curriculum Committee (2006-2008)

Misc. ad hoc committees

PH.D. STUDENTS SUPERVISED

Name	Graduation Date
Dissertation Title Current Affiliation Siu-Kai Chan "Asymptotic Expansions for Martingales and Improvement of the P-value Estimate in the Two-sample Problem in Survival Analysis" now with Capstone Global Energy and PreussenElektra	March 1994
Nicole A. Lazar "Some Inferential Aspects of Empirical Likelihood" now Associate Professor, Dept of Statistics, University of Georgia	August 1996
Bo (Jennifer) Liang "Options Pricing with Transaction Cost: An Asymptotic Approach" now with CitiBank, New York	August 1997
Kaare K. Simonsen "Simulating First Passage Times and the Maximum of Stochastic Differential Equations: An Error Analysis" now with ABN Amro Bank, London	August 1997
Nancy Clements "Estimating Treatment Effects in Observational Studies: Properties of an Estimator Based on Propensity Scores" now with the Lewin Group, Virginia	December 1997
Takaki Hayashi "The Hedging of Contingent Claims under Model Uncertainty: A Data Driven Approach" now Associate Professor, Grad. School of Business, Keio University, Japan	June 2000

Seongjoo Song “Options and Discontinuity: An Asymptotic Decomposition for Trading Algorithms now Assistant Professor, Department of Statistics, University of Seoul	June 2001
Lan Zhang, “From Martingales to ANOVA: Implied and Realized Volatility” now Associate Professor, Department of Finance, University of Illinois at Chicago	June 2001
Rituparna Sen “Modeling the Stock Price Process as a Continuous Time Jump Process” now Assistant Professor, Department of Statistics, University of California, Davis	August 2004
Suzanne (Seoyeon) Lee “The Detection of Jumps in Financial Data” (Ph.D. from Econometrics group in University of Chicago Graduate School of Business) now Assistant Professor, College of Management, Georgia Institute of Technology	June 2005
Oli Atlason “Generalized Parametric Models” now at Goldman Sachs	August 2008
Yingying Li “Robustness of Volatility Estimation” now Postdoc in Bendheim Center/ORFE, Princeton	August 2008
Dale Rosenthal “Trade Classification and Nearly-Gamma Random Variables” now Assistant Professor, Department of Finance, University of Illinois at Chicago	August 2008
Phillip Lynch	expected August 2009
D. Christina Wang	expected June 2010

PH.D. DISSERTATION COMMITTEES at Graduate School of Business

Name	Graduation Date
Dissertation Title Xuezheng Bai “Beyond Merton’s Utopia: Effects of Non-normality and Dependence on the Precision of Variance Estimators using High-frequency Financial Data”	December 2000
Current Affiliation Michael Yuanjie Zhang “Econometric Modeling of High-frequency Financial Data with Applications to Market Microstructure”	March 2001
Robert Kimmel “Modeling the Term Structure of Interest Rates: A New Approach”	June 2001
Chen Yang “Realized Variance Forecasting and Option Pricing ”	December 2006

STUDENTS SUPERVISED: M.S., M.A., and undergraduates (with graduation dates)

Hsing-Chu (Mandy) Lai (M.S., March 1996, now with the European Bank for Reconstruction and Development, London)

Mei-Hsiu Chen (M.S., June 1996; later PhD in Biostatistics 2004 from Brown University, and she is now an Assistant Professor in the Center for Statistical Sciences, Brown University)

Wei Tang (M.A., June 1997, now with the Gartner Group)

Ann Livschiz (B.A. with honors, June 1997, later PhD in History 2004 from Stanford University, and she is now Assistant Professor, Department of History, Indiana University-Purdue University, Ft. Wayne, Indiana)

Takaki Hayashi (M.S., August 1997; went to The Industrial Bank of Japan, but came back to our Ph.D. program, see above)

Luigi Cefis (M.S., August 1998)

David Cheng (M.S., August 1998)

Seo Yeon Lee (M.S., August 1999; see under Ph.D. students above)

Fan Gao (M.S., August 1999, graduated with a Ph.D. from the Department of Psychology. Now with ZS Associates)

Jing Song (M.S., August 1999. Now with Northwestern University)

Ming Wen (M.S., August 1999, graduated with a Ph.D. from the Department of Sociology. Now assistant professor in the Department of Sociology, University of Utah)

Andrei Taskin (M.S., March 2000. Ph.D. student in the Department of Economics, and currently works at Credit Suisse First Boston, New York)

Jacky Cheung (M.S., June 2000)

Yantao Wang (M.S., June 2000. Now Ph.D. student in the Department of Marketing, Northwestern University)

Lei Jin (M.S., June 2001, later Ph.D. from the Department of Sociology, now Assistant Professor in the Department of Sociology, Chinese University of Hong Kong)

Rubens Cysne (M.S., December 2003)

Xinge (Jessie) Zheng (M.S., June 2004, now Ph.D. student in Dept. of Statistics, Purdue University)

Michele Glatter (M.S., June 2005, now with Citadel Investment Group)

Ben Verschuere (M.S., Dec. 2005). Now Ph.D. student in the Department of Statistics, University of Toronto

Jun Liu (M.S., April 2006), now Ph.D. student in statistics at New York University

Lei Lian (M.S., April 2006, joint with Federico Bando and Jeff Russell). Now Ph.D. student in econometrics in the UofC Graduate School of Business

Xiaohui Chang (B.A., with honors, June 2006), now Ph.D student in statistics at UofC

Maria Rios Arango (M.S., December 2006). Now Ph.D. student in econometrics in the UofC Graduate School of Business

Jia Liu (M.S., December 2006)

Hans Roggeman (M.S., August 2007)

Meiqing Lu (M.S., December 2008)

Zhifan Zhang (M.S., December 2008)

Shu Zhang (M.S., March 2009 expected)

INVITED PRESENTATIONS SINCE 1997

American Mathematical Society conference, San Diego (January 1997)

Chicago Statistical Association (February 1997)

U.C. Berkeley Statistics Department (March 1997)

Institute of Mathematical Statistics, Asian/Pacific Regional Meeting, Taipei (July 1997)

Center for Mathematical Sciences, U.W. Madison (July 1997) (five lectures)

Centre de recherches mathématiques, Université de Montréal, Summer School on Likelihood and Asymptotics, Banff, Canada (July 1997)

Centre de recherches mathématiques, Université de Montréal, Workshop on Symbolic Computation, Montreal (September 1997)

Department of Statistics, Michigan State University (October 1997)

Department of Statistics, Carnegie-Mellon University (October 1997)

Department of Mathematics, Tulane University (November 1997)

Financial Engineering Workshop, University of Chicago (December 1997)

Department of Statistics, UCLA (extended visit, March 1998), including workshop on finance

The Chicago Risk Management Workshop (Univ. of Illinois at Chicago and NationsBank) (April 1998)
Department of Theoretical Statistics, University of Copenhagen (June 98)
Special invited lecture at the semi-annual Scandinavian statistical congress, Elsinore, Denmark (June 1998)
Institute of Mathematical Statistics, meeting with WNAR, San Diego (June 1998)
Institute of Mathematical Statistics, annual meeting, Dallas (August 1998)
Taiwan International Statistical Symposium, Taipei (August 1998)
International Chinese Statistical Association conference, Kunming (August 1998)
Department of Statistics, Ohio State University (September 1998)
Clifford Conference, Tulane University (October 1998)
Morgan Stanley, New York (December 1998)
Department of Economics, Princeton University (December 1998)
Indian Statistical Institute, Calcutta (March 1999)
Mathematical finance seminar, University of Wisconsin, Madison (March 1999)
Department of Statistics, Columbia University (May 1999)
Interface conference, Shaumburg (June 1999)
Stochastic Processes and Applications conference, Beijing (June 1999)
NSF/NBER time series conference, Taipei (August 1999)
Department of Mathematics, University of Oslo (August 1999)
Department of Statistics, Rutgers University (September 1999)
Bell Labs (October 1999)
Department of Statistics, Yale University (October 1999)
Department of Statistics, Wharton School, University of Pennsylvania (December 1999)
Department of Operations Research and Financial Engineering, Princeton University (January 2000)
Econometrics and Statistics Group, Graduate School of Business, The University of Chicago (February 2000)
Symposium on Inference for Stochastic Processes, Athens, Georgia (May 2000)
IMS/Bernoulli World Congress, Guanajuato, Mexico (May 2000)
Symposium on Likelihood and Asymptotics, Ascona, Switzerland (July 2000)
World Congress of the Econometric Society, Seattle (refereed contributed, August 2000)
International Conference on Monte Carlo and Quasi-Monte Carlo Methods, Hong Kong (November 2000)
European Conference of the Econometrics Community, Dublin, Ireland (Econometrics Journal invited lecture, December 2000)
Department of Statistics, Colorado State University, Fort Collins (February 2001)
Department of Statistics, Columbia University (February 2001)
Department of Statistics, University of Toronto (March 2001)
The Applied Probability Day, Columbia University (April 2001)
Newton Institute, Cambridge, UK (July 2001)
Handbook of Financial Econometrics Conference, Princeton University (November/December 2001)
Department of Economics, Brown University (December 2001)
IMS Annual Meeting, Banff, Canada (Medallion Lecture, June 2002)
Department of Economics, Princeton University (December 2002)
Conference on Nonparametric Statistics, Tallahassee (January 2003)
Computational Finance Seminar, Purdue University (March 2003)
IMS/ASA annual meeting, San Francisco (August 2003)
Conference on Realized Volatility, University of Montréal (November 2003)
Workshop on Statistics in Finance, Oberwolfach (January 2004)

Department of Statistics, Department of Mathematics, Carnegie Mellon University (March 2004)
Department of Operations Research and Financial Engineering, Princeton University (March 2004)
Department of Statistics, Yale University (March 2004)
Department of Statistics, University of Connecticut (March 2004)
Department of Statistics, University of California, Berkeley (April 2004)
International Chinese Statistical Assoc., Applied Statistics Symposium (San Diego, June 2004)
ETH Zurich Department of Statistics (July 2004)
IMS Annual Meeting, Barcelona (July 2004)
Conference on operator methods in microeconometrics, time series, and finance, University of Montréal (November 2004)
Stern School of Business, New York University (January 2005)
Department of Statistics, University of Wisconsin, Madison (March 2005)
The 55th Session of the International Statistical Institute, Sydney, Australia (April 2005)
The 2nd Purdue Minisymposium on Financial Mathematics (April 2005)
Department of Statistics, University of Pennsylvania (April 2005)
CIRANO-CIREQ Financial Econometrics Conference, University of Montréal (discussant) (April 2005)
Princeton-Chicago Conference on the Econometrics of High Frequency Financial Data, Bonita Springs, Florida (June 2005)
Conference on Financial Engineering and Risk Management, Shanghai, China (July 2005)
Inaugural workshop on Statistics, Chinese Academy of Sciences, Beijing, China (July 2005)
Joint Meeting of the Chinese Society of Probability and Statistics (CSPS) and the Institute of Mathematical Statistics, Beijing, China (July 2005)
Newton Institute, Cambridge, UK (July 2005)
European Regional Meeting of the Bernoulli Society, Oslo, Norway (July 2005)
IMS/ASA Annual Meeting, Minneapolis (discussant) (August 2005)
Workshop on Financial Mathematics, Statistics and Econometrics, SAMSI, North Carolina (Sept 2005)
Citadel Investment Group, Chicago (Dec 2005)
Department of Finance, Kellogg School of Business, Northwestern University (March 2006)
Workshop on Risk Measures and Risk Management for High-Frequency Data, EURANDOM, Eindhoven (The Netherlands) (March 2006)
Department of Statistics, Rice University (April 2006)
CIREQ Conference on Realized Volatility, University of Montréal (April 2006)
CIRANO-CIREQ Financial Econometrics Conference, University of Montréal (May 2006)
Statistics at the Frontiers of Science, Banff International Research Station (June 2006)
International Symposium on Financial Engineering and Risk Management, Xiamen (Amoy) University (China) (July 2006)
IMS annual meeting, Rio de Janeiro (July 2006)
Department of Statistics, Columbia University (Oct 2006)
Department of Statistics, University of Illinois at Urbana-Champaign (Nov 2006)
Department of Finance and Management Science, Norwegian School of Business Administration (Dec 2006)
Department of Industrial Engineering and Management Sciences, Northwestern University (Feb 2007)
Department of Statistics, University of Florida, Gainesville (Feb 2007)
Department of Industrial and Systems Engineering, University of Florida, Gainesville (Feb 2007)
Department of Applied Mathematics, Illinois Institute of Technology (Feb 2007)
Department of Mathematics, University of Illinois at Chicago (Apr 2007)
Conference on Volatility and High Frequency Data, University of Chicago (Apr 2007)

Séminaire Européen de Statistique 2007, Cartagena, Spain (May 2007)
 London School of Economics (May 2007)
 Conference on Financial Econometrics, Imperial College, London (May 2007)
 Department of Finance and Management Science, Norwegian School of Business Administration (May 2007)
 Econometric Study Group conference, Bristol, UK (July 2007)
 Weierstrass Institute, Berlin (July 2007)
 International Symposium on Business and Industrial Statistics, Ponta Delgada, Azores (August 2007)
 Departments of Economics and Statistics, Cornell University (October 2007)
 Conference of Likelihood Methods, Princeton University (October 2007)
 School of Operations Research and Information Engineering, Cornell University (November 2007)
 Department of Statistics, University of California, Davis (January 2008)
 Departments of Finance and ISMT, Hong Kong University of Science and Technology (February/March 2008)
 Conference on The Mathematics and Statistics of Quantitative Risk Management, Oberwolfach, Germany
 (March 2008)
 Smurfit School of Business, University College Dublin (March 2008)
 Workshop on Finance and Statistics, Chicago (April 2008)
 Oxford-Man Institute, Oxford University (June 2008)
 Society for Financial Econometrics inaugural conference (June 2008)
 Bachelier Finance Society World Congress (July 2008)
 Vast Data Conference, Oxford (September 2008)
 Department of Economics, Stanford University (October 2008)
 North Carolina Research Triangle Econometrics Conference (keynote speaker) (Dec 2008)

TEACHING SINCE AUTUMN 1995

Elementary Statistics (Statistics 200) undergraduate	2001/02, 2002/03
Mathematical Statistics I (Statistics 301) PhD	1995/96
Mathematical Statistics II (Statistics 302) PhD	2001/02, 2002/03
Introduction to Stochastic Processes I (Statistics 312) PhD	2005/06
Introduction to Stochastic Processes II (Statistics 313) PhD	1998/99, 1999/2000, 2007/08-2008/09
Statistical Inference for Financial Data (Statistics 338) PhD	2003/04-2006/07
Financial Data Analysis (Statistics 339/Financial Math 331) Master/PhD	2006/07, 2007/08
Probability and Finance (Statistics 389) Master/PhD	1995/96
Stochastic Calculus I (Statistics 390/Financial Math 345) Master/PhD	1995/96-1998/99, 2002/03-2005/06, 2008/09
Stochastic Calculus II (Statistics 391/Financial Math 346) Master/PhD	1996/97, 1997/98*, 1999/2000, 2001/02, 2003/04-2004/05, 2006/07
Statistical Inference for Financial Data (Statistics 438) Master/PhD	2007/08-2008/09
Advanced Topics in Probability (Statistics 485) PhD	1999/2000
Workshop on Shrinking Interval Asymptotics (Statistics 488) PhD	two quarters 1996/97
Financial Engineering Workshop (Statistics 493) PhD	1997/98-1999/2000*
Workshop on Statistical Finance (Statistics 494) PhD	1998/99, 2003/04
The Craft of Research (Statistics 497) PhD	1996/97*
Stochastics Bootcamp (Statistics 590) PhD	1997/98
Regression and Applied Time Series (Princeton ORF 405) undergraduate	2000/01
Econometrics for Stochastic Processes (Princeton ECO 575) PhD	2000/01

* denotes joint with another faculty member

BIBLIOGRAPHY
PER ASLAK MYKLAND

February 2009

Most papers are available on the Internet at <http://galton.uchicago.edu/~mykland/publ.html>

Published or to appear

- Mykland, P.A. (1991). Consulting as a part of statistical education - some experiences from Chicago (in Norwegian), *Tilfeldig Gang* **8** no. 2, 26-28 (*Tilfeldig Gang* is the Bulletin of the Norwegian Statist. Assoc.).
- Mykland, P.A. (1992). Asymptotic expansions and bootstrapping-distributions for dependent variables: a martingale approach. *Ann. Statist.* **20** 623-654.
- Mykland, P.A. (1993). Asymptotic expansions for martingales. *Ann. Probab.* **21** 800-818.
- Chaudhuri, P., and Mykland, P.A. (1993). Nonlinear experiments; optimal design and inference based on likelihood, *J. Amer. Statist. Assoc.* **88** 538-546.
- Mykland, P.A. (1994). Bartlett type identities for martingales. *Ann. Statist.* **22** 21-38.
- Mykland, P.A., Tierney, L., and Yu, B. (1995). Regeneration in Markov chain samplers, *J. Amer. Statist. Assoc.* **90** 233-241.
- Mykland, P.A. (1995). Dual likelihood. *Ann. Statist.* **23** 396-421.
- Mykland, P.A. (1995). Martingale Expansions and Second Order Inference. *Ann. Statist.* **23** 707-731.
- Chaudhuri, P., and Mykland, P.A. (1995). On efficient designing of nonlinear experiments, *Statistica Sinica* **5** 421-440.
- Mykland, P.A. (1995). Embedding and asymptotic expansions for martingales, *Probab. Theory Rel. Fields* **103** 475-492.
- Mykland, P. A., and Ren, J.-J. (1996). Algorithms for computing self-consistent and maximum likelihood estimators with doubly censored data, *Ann. Statist.* **24** 1740-1764.
- Mykland, P.A. (1997). Likelihood from estimating functions, *The Selected Proceedings of the Symposium on Estimating Functions*, Basawa, I.V., Godambe, V.P., and Taylor, R.L. (eds.). *IMS Lect. Notes. - Monograph series* **32**), 57-61.
- Yu, B., and Mykland, P. A. (1998). Looking at Markov samplers through cusum path plots: a simple diagnostic idea, *Statistics and Computing* **8** 275-286.
- Lazar, N., and Mykland, P. A. (1998). An evaluation of the power and conditionality properties of empirical likelihood, *Biometrika* **85** 523-534.
- Lazar, N., and Mykland, P. A. (1999). Empirical likelihood in the presence of nuisance parameters, *Biometrika* **86** 203-211.
- Mykland, P.A. (1999). Bartlett identities and large deviations in likelihood theory, *Ann. Statist.* **27** 1105-1117.
- Mykland, P.A. (1999). Trading strategies under statistical uncertainty: An approach based on a single prediction interval, in *The proceedings of the 1999 NBER/NSF time series conference*, Academia Sinica, Taipei.
- Mykland, P.A. (2000). Conservative delta hedging *Ann. Appl. Probab.* **10** 664-683.
- Mykland, P.A. (2001). Likelihood computations without Bartlett identities, *Bernoulli* **7** 473-485.
- Ait-Sahalia, Y., and Mykland, P.A. (2003). The effects of random and discrete sampling when estimating continuous-time diffusions, *Econometrica* **71** 483-549.
- Mykland, P.A. (2003). The interpolation of options, *Finance and Stochastics* **7** 417-432.
- Mykland, P.A. (2003). Financial options and statistical prediction intervals, *Ann. Statist.* **31** 1413-1438.

(continued on next page)

- Aït-Sahalia, Y., and Mykland, P.A. (2004). Estimators of diffusions with discrete observations: a general theory, *Ann. Statist.* **32** 2186-2222.
- Aït-Sahalia, Y., Mykland, P.A., and Zhang, L. (2005). How often to sample a continuous-time process in the presence of market microstructure noise, *Review of Financial Studies* **18** 351-416.
- Hayashi, T., and Mykland, P.A. (2005). Evaluating Hedging Errors: An Asymptotic Approach, *Math. Finance* **15** 309-343.
- Zhang, L., Mykland, P.A., and Aït-Sahalia, Y. (2005). A tale of two time scales: Determining integrated volatility with noisy high-frequency data, *J. Amer. Statist. Assoc.* **100** 1394-1411.
- Mykland, P.A., and Zhang, L. (2006). ANOVA for diffusions and Itô processes. *Ann. Statist.* **34** 1931-1963.
- Song, S., and Mykland, P.A. (2006). An Asymptotic Decomposition of Hedging Errors. *Journal of the Korean Statistical Society* **35** 115-142.
- Li, Y., and Mykland, P.A. (2007). Are volatility estimators robust with respect to modeling assumptions? *Bernoulli* **13** 601-622.
- Lee, S., and Mykland, P.A. (2008). Jumps in financial markets: A new nonparametric test and jump clustering. *Review of Financial Studies* **21** 2535-2563.
- Aït-Sahalia, Y., and Mykland, P.A. (2008). An analysis of the Hansen-Scheinkman method of moments estimators for discretely and randomly sampled diffusions. *Journal of Econometrics* **144** 1-26.
- Mykland, P.A., and Zhang, L. (2008). Inference for volatility-type objects and implications for hedging, *Statistics and Its Interface* **1** 255-278.
- Jacod, J., Li, Y., Mykland, P.A., Podolskij, M., and Vetter, M. (2007). Microstructure noise in the continuous case: The Pre-Averaging Approach (to appear in *Stochastic Processes and Applications*).
- Aït-Sahalia, Y., and Mykland, P.A. (2008). Estimating Volatility in the Presence of Market Microstructure Noise: A Review of the Theory and Practical Considerations (to appear in *Handbook of Financial Time Series* (T. Andersen, R. Davis, and T. Mikosch, eds)).
- Mykland, P.A., and Zhang, L. (2007). Inference for Continuous Semimartingales Observed at High Frequency (to appear in *Econometrica*).

Discussions

- Mykland, P.A., and Zhang, L. (2005). Discussion of paper “A selective overview of nonparametric methods in financial econometrics” by Jianqing Fan, *Statistical Science* **20** 347-350.
- Aït-Sahalia, Y., Mykland, P.A., and Zhang, L. (2006). Comment of “Realized variance and market microstructure noise” by Peter Hansen and Asger Lunde *J. Bus. Econ. Statist.* **24** 162-167.

Submitted

- Mykland, P.A. (2001, revised 2009). Options pricing bounds and statistical uncertainty. Technical report no. 511, Department of Statistics, University of Chicago (submitted to *Handbook of Financial Econometrics*, Y. Aït-Sahalia and L.P. Hansen, eds.).
- Mykland, P.A. (2005). Combining statistical intervals and market prices: The worst case state price distribution, TR 553, Department of Statistics, The University of Chicago (will be resubmitted to *Ann. Appl. Probab.*).
- Aït-Sahalia, Y., Mykland, P.A., and Zhang, L. (2006). Ultra high frequency volatility estimation with dependent microstructure noise, TR 554, Department of Statistics, The University of Chicago. (in revision for *Journal of Econometrics*).
- Zhang, L., Mykland, P.A., and Aït-Sahalia, Y. (2006). Edgeworth expansions for realized volatility and related estimators, TR 556, Department of Statistics, The University of Chicago. (in revision for *Journal of Econometrics*).
- Lee, S., and Mykland, P.A. (2008). Jumps in equilibrium prices and market microstructure noise (in revision for *Journal of Econometrics*).
- Mykland, P.A., and Zhang, L. (2009). The econometrics of high frequency data (submitted to *Statistical Methods for Stochastic Differential Equations*, M. Kessler, A. Lindner, and M. Sørensen, eds. (Chapman & Hall/CRC Press)).

(continued on next page)

Master and PhD Theses

Mykland, P. A. (1984). *Causality in stochastic processes* (Master's thesis, University of Bergen, Norway).

Mykland, P. A. (1989). *Edgeworth and bootstrap methods for dependent variables* (Ph. D. thesis, University of California, Berkeley).

Technical Reports

Mykland, P. A. (1986). Statistical causality, Statistical report no. 14, Dept. of Mathematics, University of Bergen (accepted by *Econometrica* subject to changes in 1988, but let lapse by author).

Mykland, P. A. (1986). Stable subspaces over regular solutions of martingale problems, Statistical report no. 15, Dept. of Mathematics, University of Bergen.

Mykland, P. A., and Ye, J. (1992). Cumulants and Bartlett identities in Cox regression, Technical report no. 332, Dept. of Statistics, University of Chicago.

Mykland, P.A. (1994). Nonparametric and dual likelihood in survival analysis, Technical report no. 395, Dept. of Statistics, University of Chicago.

Chan, S.-K., and Mykland, P. A. (1994). On first order asymptotic expansions for martingales, Technical report no. 88, Dept. of Biostatistics, University of Wisconsin, Madison.

Mykland, P.A. (1996/98). Options pricing and statistical uncertainty, Technical report no. 430, Department of Statistics, University of Chicago.

Mykland, P.A., and Zhang, L. (2001). A no-arbitrage relationship between implied and realized volatility.

Mykland, P.A. (2006). A Gaussian calculus for inference from high frequency data, TR 563, Department of Statistics, The University of Chicago.

Mostly Superseded

Mykland, P.A. (1991). On second order asymptotic expansions for martingales, Technical report no. 322, Dept. of Statistics, University of Chicago (about 75% overlap with TR 364 below).

Mykland, P.A. (1993). Second order asymptotic expansions for martingales, Technical report no. 364, Dept. of Statistics, University of Chicago. (Essentials published in sect. 5-6 of 'Embedding and asymptotic expansions for martingales').

Mykland, P.A. (1995). A Note on the Large Deviation Properties of the Signed Square Root of the Likelihood Ratio Statistic, Technical report no. 411, Dept. of Statistics, University of Chicago. (Mostly incorporated into 'The accuracy of likelihood').

Mykland, P.A. (1995/96). Large and small deviations of the likelihood ratio statistic, Technical report no. 418, Department of Statistics, University of Chicago (mostly absorbed in 'Likelihood computations without Bartlett identities').

Aït-Sahalia, Y., and Mykland, P.A. (2000). The asymptotic properties of estimators of continuous time diffusions when the data are sampled at discrete and possibly random times (mostly absorbed by the two A&M papers above).