CURRICULUM VITAE **February 2019**

Torben Gustav Andersen

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Personal Information

Marital status: Married; three children.
Citizenship: Denmark; U.S. Permanent Resident.

Education

Ph. D. in Economics, **Yale University,** New Haven, 1992.
Master's Degree, Science, Economics and Mathematics (Cand Scient Oecon).
University of Aarhus, Denmark, 1985.

Academic Positions:

2018-present: Fellow of the ***Society for Economic Measurement, SEM***.

2015-2017 Chair, Department of Finance, Kellogg School of Management, Northwestern University.

2000-present: *Nathan S. and Mary P. Sharp Distinguished Professor of Finance*, Department of Finance, Kellogg School of Management, Northwestern University.

2011-2017 Member of Board, *Foundation for Advancement of Research in Financial Economics*

2013-present: Fellow of the ***Society for Financial Econometrics, SoFiE***.

2008-present: Fellow of the ***Econometric Society***.

2008-present: Research Affiliate of ***The Volatility Institute,*** Stern School of Business, New York University.

2008-2013: Faculty Fellow, ***Zell Center for Risk Research***; Kellogg School of Management.

2007-present: International Fellow, *Center for Research in Econometric Analysis of Economic Time Series **(CREATES)***; Aarhus, Denmark.

2006-2012: Director, ***International Business & Markets Program***; Kellogg School of Management, Northwestern University.

2000-present: Research Associate, *National Bureau of Economic Research (**NBER**)*; Cambridge, MA.

1997-2000: Associate Professor, Department of Finance, Kellogg School of Management, Northwestern University.

1991-1997: Assistant Professor, Department of Finance, Kellogg School of Management, Northwestern University.

Fields of Interest:

Return Volatility Modeling, Financial Econometrics; Asset Pricing, Time Series Econometrics, International Finance

Fellowships, Honors and Awards:

Fellow of the *Society for Economic Measurement,* 2018-present
National Science Foundation Research Grants, **2015-2017;** 2006-2008; 1998-2005.
Listed on "Highly Cited Scholars" Ranking, Business and Economics, Thomson-Reuters **2015**, 2014
Finalist, AQR Insight Award, 2014.
Rigmor and Carl Holst-Knudsen Science Prize 2013, University of Aarhus, Denmark
CME Foundation Research Grant, 2013.
Fellow of the *Econometric Society*, 2008-present
Fellow of the *Society for Financial Econometrics*, 2011-present
Certificate of Appreciation for Editorship, Journal of Business & Economic Statistics, *American Statistical Association*, 2006.
Morgan Stanley Market Microstructure Research Grant, 2003.
BSI Gamma Foundation Grant, 2002-2003, for "The Evolving Effects of Macroeconomic News on Global Stock, Bond and Foreign Exchange Markets."
Best Paper Award, *Multinational Finance Journal,* 2000.
Institute for Quantitative Research in Finance (Q-Group) Fellowship, 1996;
Merrill-Lynch Research Fellowship, 1993; 1995;
Research Fellowship, Kellogg, Northwestern University, 1991-92, 1994
NATO Science Fellowship, 1990
Alfred P. Sloan Dissertation Fellowship, 1989

Editor-in-Chief: *Journal of Business & Economic Statistics* (January 2004 – December 2006)
Co-Editor: *Journal of Financial Econometrics* (2009 – 2014)
Journal of Econometrics (July 2019 –)

Editorial Boards:

Springer Series in Operations Research and Financial Engineering (Advisory Board; June 2006-)
Review of Financial Studies (July 2002 – July 2005)
Journal of Financial Econometrics (April 2001 – June 2009)
Econometric Theory (January 2002 – December 2003)
Journal of Finance (March 2000 – October 2003)
Journal of Empirical Finance (May 1998 - November 2001)
Journal of Business & Economic Statistics (March 1998 – December 2003)
Management Science (December 1997 - December 2000)

Program Committee:

Co-Chair, SoFiE Summer School; Kellogg School, Northwestern University, 2017, 2019.
Co-Chair, Program Committee, NBER-NSF Time Series Conference; Kellogg School, Northwestern University, 2017.
Program Director (solo), **SoFiE Eighth Annual Meeting**, Aarhus University, Denmark; June 2015.
Society for Financial Econometrics, 2009, and each year 2011-2019.
Econometric Society Meeting, Montréal, Canada, 1998; New Orleans, 2008.
European Finance Association Meeting, Fontainebleau, France, 1998; Helsinki, Finland, 1999; Copenhagen, Denmark, 2012; Cambridge, U.K., 2013.
Western Finance Association Meeting, Sun Valley, 2000; Tucson, 2001; Park City, 2002; Cabo Real, Mexico, 2003; Vancouver, Canada, 2004;
American Finance Association Meeting, Washington, D.C., 2003.

Teaching:

International Finance, International Financial Decisions (MBA, Undergraduate level)
Empirical Finance, Advanced Derivatives, High-Frequency Asset Pricing (Ph.D. level)

Consulting:

Federal Reserve Board of Governors; regional Federal Reserve Banks
Chicago-based Financial Market Trading Companies; Hedge Funds;
International Academic Institutions; Financial Litigation Cases

Articles and Books:

"The Pricing of Tail Risk and the Equity Premium: Evidence from International Option Markets," with Nicola Fusari, and Viktor Todorov; forthcoming; ***Journal of Business & Economic Statistics***.

"Time-Varying Periodicity in Intraday Volatility," with Martin Thyrsgaard and Viktor Todorov; forthcoming, ***Journal of the American Statistical Association***.

"Inference for Option Panels in Pure Jump Settings," with Nicola Fusari, Viktor Todorov and Rasmus Varneskov; forthcoming, ***Econometric Theory***.

"Unified Inference for Nonlinear Factor Models from Panels with Fixed and Long Time Span," with Nicola Fusari, Viktor Todorov and Rasmus Varneskov; forthcoming, ***Journal of Econometrics***.

"Introduction," with Tim Bollerslev; T.G. Andersen and T. Bollerslev (eds.): ***Volatility, Volume I***, Edward Elgar Publishing; THE INTERNATIONAL LIBRARY OF CRITICAL WRITINGS IN ECONOMICS; Cheltenham, United Kingdom; Northampton, MA, United States; pages xiii-xli; 2018.

"***Volatility, Volume I and II***," Torben G. Andersen and Tim Bollerslev (eds.); THE INTERNATIONAL LIBRARY OF CRITICAL WRITINGS IN ECONOMICS; Edward Elgar Publishing; Cheltenham, United Kingdom; Northampton, MA, United States; 2018.

"Short-Term Market Risks Implied by Weekly Options," with Nicola Fusari and Viktor Todorov, ***Journal of Finance*** 72, 1335-1386, 2017.

"Assessing Measures of Toxic Order Flow and Early Warning Signals for Market Turbulence," with Oleg Bondarenko; ***Review of Finance*** 19, 1-54, 2015 (**Lead Article**).

"The Risk Premia Embedded in Index Options," with Nicola Fusari and Viktor Todorov; ***Journal of Financial Economics*** 117, 558-584, 2015.

"Parametric Inference and Dynamic State Recovery from Option Panels," with Nicola Fusari and Viktor Todorov; ***Econometrica*** 83, 1081-1145, 2015.

"Exploring Return Dynamics via Corridor Implied Volatility," with Oleg Bondarenko and Maria Gonzalez-Perez; ***Review of Financial Studies*** 28, 2902-2945, 2015.

"The Fine Structure of Equity-Index Option Dynamics," with Oleg Bondarenko, Viktor Todorov and George Tauchen; ***Journal of Econometrics*** **187,** 532-546, 2015.

"A Robust Neighborhood Truncation Approach to Estimation of Integrated Quarticity," with Dobrislav Dobrev and Ernst Schaumburg; ***Econometric Theory*** 30, 3-59, 2014.

"VPIN and the Flash Crash," with Oleg Bondarenko; ***Journal of Financial Markets*** 17, 1-46, 2014.

"Reflecting on the VPIN Dispute," with O. Bondarenko; ***Journal of Financial Markets*** 17, 53-64, 2014

"Financial Risk Measurement for Financial Risk Management," with Tim Bollerslev, Peter Christoffersen and Francis X. Diebold; G.Constantinides, M. Harris and R. Stulz (eds.): ***Handbook of the Economics of Finance***; Elsevier, North Holland; Chapter 17, pp. 1127-1220, 2013.

"Robust Volatility Estimation using Nearest-Neighbor Truncation," with Dobrislav Dobrev and Ernst Schaumburg; ***Journal of Econometrics*** 169, 75-93, 2012.

"Realized Volatility Forecasting and Market Microstructure Noise," with Tim Bollerslev and Nour Meddahi; ***Journal of Econometrics*** 160, 220-234, 2011.

"A Reduced Form Framework for Modeling Volatility of Speculative Prices Based on Realized Variation Measures," with Tim Bollerslev and Xin Huang; ***Journal of Econometrics***, 160, 176-189; 2011.
"Do Bonds Span Volatility Risk in the U.S. Treasury Market? A Specification Test for Affine Term Structure Models," with Luca Benzoni; ***Journal of Finance*** 65, 603-653, 2010.

"Continuous-Time Models, Realized Volatilities and Testable Distributional Implications for Daily Stock Returns," with Tim Bollerslev, Per Frederiksen and Morten Nielsen; ***Journal of Applied Econometrics***.25, 233-261, 2010.

"Parametric and Nonparametric Measurements of Volatility," with Tim Bollerslev and Francis X. Diebold; Y. Ait-Sahalia and L.P. Hansen (eds.): ***Handbook of Financial Econometrics,*** Volume 1 – Tools and Techniques; North Holland; pp. 67-137, 2010.

"Stochastic Volatility," with Luca Benzoni; in Bob Meyers (ed.): ***Complex Systems in Finance and Econometrics,*** Springer Verlag, pp 694-726, 2009.

Handbook of Financial Time Series, Co-Editor with Richard A. Davis, Jens-Peter Kreiss and Thomas Mikosch; Springer Verlag, 2009.

"Introduction," with R.A. Davis, J.-P. Kreiss and T. Mikosch; in T.G. Andersen, R.A. Davis, J.-P. Kreiss and T. Mikosch (eds.): ***Handbook of Financial Time Series,*** Springer Verlag, 2009, pp 1-13.

"Stochastic Volatility: Origins and Overview," with Neil Shephard; in T.G. Andersen, R.A. Davis, J.-P. Kreiss and T. Mikosch (eds.): ***Handbook of Financial Time Series,*** Springer Verlag, 2009, pp 233-254.

"Realized Volatility," with Luca Benzoni; in Torben G. Andersen, Richard Davis, Jens-Peter Kreiss and Thomas Mikosch (eds.): ***Handbook of Financial Time Series,*** Springer Verlag, 2009, pp 555-575.

"Stochastic Volatility," with Luca Benzoni; **forthcoming** in Bob Meyers (ed.) and Bruce Mizrach (section ed.): ***Encyclopedia of Complexity and Systems Science,*** Springer Verlag, 2009, Part 19, pp 8783-8815.

"Realized Volatility and Multipower Variation," with Viktor Todorov; in Rama Cont (ed.) and Ole Barndorff-Nielsen and Eric Renault (section eds.): ***Encyclopedia of Quantitative Finance,*** Wiley.

"Volatility Modeling," in Brian Everitt and Ed Melnick (eds.): ***Encyclopedia of Quantitative Risk Assessment***; Volume 4, Wiley; September 2008.

"Realized Volatility," in Steven Durlauf and Lawrence Blume (eds.): ***New Palgrave, 2nd Edition,*** New Palgrave-MacMillan; June 2008.

"Construction and Interpretation of Model-Free Implied Volatility," with Oleg Bondarenko; in Israel Nelken (ed.): ***Volatility as an Asset Class,*** pp. 141-181; Risk Books, London, 2007.

"Real-Time Price Discovery in Global Stock, Bond and Foreign Exchange Markets," with Tim Bollerslev, Francis X. Diebold and Clara Vega. ***Journal of International Economics*** 73, 251-277, 2007.

"Roughing It Up: Including Jump Components in Measuring, Modeling, and Forecasting of Asset Return Volatility," with Tim Bollerslev, Francis X. Diebold; ***Review of Economics and Statistics*** 89, 701-720; 2007. **Reprinted** 2018 in ***Volatility, Volume II,*** Eds.: T.G. Andersen and T. Bollerslev; International Library of Critical Writings in Economics; Chapter 23, 635-654; Edward Elgar Ltd., Cheltenham Glos, U.K.

“No-Arbitrage Semi-Martingale Restrictions for Continuous-Time Volatility Models subject to Leverage Effects, Jumps and i.i.d. Noise: Theory and Testable Distributional Assumptions,” with Tim Bollerslev and Dobrislav Dobrev; ***Journal of Econometrics***; 138; 125-180, 2007.

“Comment on “Realized Variance and Market Microstructure Noise,” by Peter R. Hansen and Asger Lunde,” with Tim Bollerslev, Per H. Frederiksen and Morten Ø. Nielsen; ***Journal of Business and Economic Statistics*** 24; 173-179, 2006.

“Volatility and Correlation Forecasting,” with Tim Bollerslev, Peter Christoffersen and Francis X. Diebold; Graham Elliott, Clive W. J. Granger and Allan Timmermann (eds.): ***Handbook of Economic Forecasting,*** Chapter 15, pp. 777-878; North Holland, 2006.

“Practical Volatility and Correlation Modeling for Financial Market Risk Management,” with Tim Bollerslev, Peter Christoffersen and Francis X. Diebold; in M. Carey and R.M. Stulz (eds.): ***The Risks of Financial Institutions,*** pp. 512-548 (with discussion), *NBER*, University of Chicago Press, 2006.

“A Framework for Exploring the Macroeconomic Determinants of Systematic Risk,” with Tim Bollerslev, Francis X. Diebold, and Jin (Ginger) Wu; ***American Economic Review*** 95, 398-404, 2005.

"Realized Beta: Persistence and Predictability," with Tim Bollerslev, Francis X. Diebold and Jin Wu; in Thomas Fomby (ed.): ***Advances in Econometrics: Econometric Analysis of Economic and Financial Time Series***, Volume B, pp. 1-40, 2005.

”Correcting the Errors: On Volatility Forecast Evaluation Using High-Frequency Data and Realized Volatilities,” with Tim Bollerslev and Nour Meddahi; ***Econometrica*** 73, 279-296, 2005.

“Analytical Evaluation of Volatility Forecasts,” with Tim Bollerslev and Nour Meddahi; ***International Economic Review*** 45, 1079-1110, 2004. **Reprinted** 2002 in *Forecasting Financial Markets,* ed: T.C. Mills; International Library of Critical Writings in Economics; Edward Elgar Ltd., Cheltenham Glos, U.K. **Reprinted** 2018 in ***Volatility, Volume II,*** Eds.: T.G. Andersen and T. Bollerslev; International Library of Critical Writings in Economics; Chapter 14, 368-399; Edward Elgar Ltd., Cheltenham Glos, U.K.

“Modeling and Forecasting Realized Volatility,” with Tim Bollerslev, Francis X. Diebold and Paul Labys; ***Econometrica 71,*** 579-625, 2003. **Reprinted** 2018 in ***Volatility, Volume II,*** Eds.: T.G. Andersen and T. Bollerslev; International Library of Critical Writings in Economics; Chapter 18, 466-512; Edward Elgar Ltd., Cheltenham Glos, U.K.

“Micro Effects of Macro Announcements: Real-Time Price Discovery in Foreign Exchange,” with Tim Bollerslev, Francis X. Diebold and Clara Vega; ***American Economic Review 93,*** 38-62, 2003. **Reprinted** 2018 in ***Volatility, Volume II,*** Eds.: T.G. Andersen and T. Bollerslev; International Library of Critical Writings in Economics; Chapter 21, 573-597; Edward Elgar Ltd., Cheltenham Glos, U.K.

"An Empirical Investigation of Continuous-Time Models for Equity Returns," with Luca Benzoni and Jesper Lund; ***Journal of Finance*** 57, 1239-1284, 2002.

"The Distribution of Realized Stock Return Volatility," with T. Bollerslev, F.X. Diebold and H. Ebens; ***Journal of Financial Economics*** 61, 43-76, 2001.

"Variance-Ratio Statistics and High-Frequency Data," with Tim Bollerslev and Ashish Das; ***Journal of Finance*** 56, 305-327, 2001.

"The Distribution of Realized Exchange Rate Volatility," with T. Bollerslev, F.X. Diebold and P. Labys; ***Journal of American Statistical Association*** 96, 42-55, 2001. **Reprinted** 2005 in *Stochastic Volatility: Selected Readings,* Ch. 15, 451-479; Ed: Neil Shephard; Advanced Texts in Economics; Oxford University Press, Oxford, U.K. **Reprinted** 2018 in ***Volatility, Volume II,*** Eds.: T.G. Andersen and T. Bollerslev; International Library of Critical Writings in Economics; Chapter 17, 451-465; Edward Elgar Ltd., Cheltenham Glos., U.K.

"Exchange Rate Returns Standardized by Realized Volatility are (Nearly) Gaussian," with T. Bollerslev, F.X. Diebold and P. Labys; ***Multinational Finance Journal*** 4, 159-179, 2000.

"Great Realisations," with T. Bollerslev, F.X. Diebold and P. Labys; ***Risk Magazine*** 18, 105-108, 2000.

"Intraday and Interday Volatility in the Japanese Stock Market," with Tim Bollerslev and Jun Cai; ***Journal of International Financial Markets, Institutions & Money*** 10, 107-130, 2000.

"Some Reflections on Analysis of High Frequency Data," ***Journal of Business & Economic Statistics*** 18, 146-153, 2000.

"Forecasting Financial Market Volatility: Sampling Frequency vis-a-vis Forecast Horizon", with Tim Bollerslev and Steve Lange; ***Journal of Empirical Finance*** 6, 457-477, 1999.

"Efficient Method of Moments Estimation of a Stochastic Volatility Model: A Monte Carlo Study," with Hyung-Jin Chung and Bent E. Sørensen; ***Journal of Econometrics*** 91, 61-87, 1999.

"Answering the Skeptics: Yes, Standard Volatility Models Do Provide Accurate Forecasts," with Tim Bollerslev; ***International Economic Review*** 39, 885-905, 1998. **Reprinted** 2002 in *Forecasting Financial Markets,* ed: T.C. Mills; International Library of Critical Writings in Economics; Edward Elgar Ltd., Cheltenham Glos, U.K. **Reprinted** 2018 in ***Volatility, Volume II,*** Eds.: T.G. Andersen and T. Bollerslev; International Library of Critical Writings in Economics; Chapter 13, 347-367; Edward Elgar Ltd., Cheltenham Glos, U.K.

"Towards a Unified Framework for High and Low Frequency Return Volatility Modeling," with Tim Bollerslev; ***Statistica Neerlandica*** 52, 273-302, 1998.

"Deutsche Mark-Dollar Volatility: Intraday Activity Patterns, Macroeconomic Announcements, and Longer Run Dependencies," with Tim Bollerslev; ***Journal of Finance*** 53, 219-265, 1998. **Reprinted** 2005 in *Foreign Exchange Markets,* Ch. 6, 133-179; Ed: R.J. Sweeney; International Library of Critical Writings in Financial Economics, Series Editor: R. Roll; Edward Elgar Ltd, Cheltenham Glos, U.K.

"ARCH and GARCH Models," with Tim Bollerslev; *Encyclopedia of Statistical Sciences, Update Volume 2*, Eds.: S. Kotz, C.B. Read, and D.L. Banks; New York: Wiley & Sons, pp. 6-16, 1998.

"Heterogeneous Information Arrivals and Return Volatility Dynamics: Uncovering the Long-Run in High Frequency Returns," with Tim Bollerslev; ***Journal of Finance*** 52, 975-1005, 1997.

"Estimating Continuous Time Stochastic Volatility Models of the Short Term Interest Rate," with Jesper Lund; ***Journal of Econometrics*** 77, 343-377, 1997. **Reprinted** 2018 in ***Volatility, Volume I,*** Eds.: T.G. Andersen and T. Bollerslev; International Library of Critical Writings in Economics; Chapter 23, 534-568; Edward Elgar Ltd., Cheltenham Glos, U.K.

"GMM and QML Asymptotic Standard Deviations in Stochastic Volatility Models: Comments on Ruiz (1994)," with Bent Sørensen; ***Journal of Econometrics*** 76, 397-403, 1997.

"Intraday Periodicity and Volatility Persistence in Financial Markets," with Tim Bollerslev; ***Journal of Empirical Finance*** 4, 115-158, 1997. **Reprinted** 2005 in *Foreign Exchange Markets,* Chapter 5, 89-132; ed. RJ Sweeney; International Library of Critical Writings in Financial Economics, Series Editor: R. Roll; Edward Elgar Ltd, Cheltenham Glos, U.K. **Reprinted** 2018 in ***Volatility, Volume II,*** Eds.: T.G. Andersen and T. Bollerslev; International Library of Critical Writings in Economics; Chapter 12, 303-346; Edward Elgar Ltd., Cheltenham Glos, U.K.

"GMM Estimation of a Stochastic Volatility Model: A Monte Carlo Study," with Bent Sørensen; ***Journal of Business & Economic Statistics*** 14, 328-352, 1996.

"Return Volatility and Trading Volume: An Information Flow Interpretation of Stochastic Volatility,"

Journal of Finance 51, 169-204, 1996. **Reprinted** 2018 in ***Volatility, Volume I,*** Eds.: T.G. Andersen and T. Bollerslev; International Library of Critical Writings in Economics; Chapter 18, 387-422; Edward Elgar Ltd., Cheltenham Glos, U.K.

"Stochastic Autoregressive Volatility: A Framework for Volatility Modeling," ***Mathematical Finance*** 4, 75-102, 1994. **Reprinted** 2005 in ***Stochastic Volatility: Selected Readings,*** Chapter 7, 177-208; edited by Neil Shephard; Advanced Texts in Economics, Series Editors: Manuel Arellano, Guido Imbens, Grayham E. Mizon, Adrian Pagan and Mark Watson; Oxford University Press, Oxford, United Kingdom. **Reprinted** 2018 in ***Volatility, Volume I,*** Eds.: T.G. Andersen and T. Bollerslev; International Library of Critical Writings in Economics; Chapter 20, 447-474; Edward Elgar Ltd., Cheltenham Glos, U.K.

Summaries, Book Reviews and Comments:

Realized Volatility, Asset Pricing, and Risk Management, w/ T. Bollerslev; ***NBER Reporter,*** 7-10; Fall 2006.

Comment (P.R. Hansen &A. Lunde: *Realized Variance and Market Microstructure Noise*), with T. Bollerslev, P.H. Frederiksen & M.Ø. Nielsen; ***Journal of Business & Economic Statistics*** 24, 173-179, 2006.

Discussion (of Ole E. Barndorff-Nielsen and Neil Shephard: "Power and Bipower Variation with Stochastic Volatility and Jumps"), ***Journal of Financial Econometrics*** 2, 37-48, 2004.

Comments on Benjamin H. Cohen and Eli M. Remolona: Information flows during the Asian crisis: Evidence from closed-end funds, ***BIS Papers*** 2 (*Market Liquidity: Proceedings from BIS Workshop)*, 73-75, 2001.

Book Review: "Simulation-Based Econometric Methods," (Gouriéroux, C. and A. Monfort, Oxford University Press); ***Econometric Theory*** 16, 131-138, 2000.

Book Review "The Econometrics of Financial Markets," (Campbell, J.Y., A.W. Lo and A.C. MacKinlay, Princeton University Press); ***Econometric Theory*** 14, 671-685, 1998.

Comment (Jacquier, E., N.G. Polson & P.E. Rossi:" Bayesian Analysis of Stochastic Volatility Models"), ***Journal of Business and Economic Statistics*** 12, 389-392, 1994.

Comments on Li, H., I. Mathur, T.V. Schwarz & A.C. Szakmary: "Dynamic Efficiency in the Treasury Bill and Eurodollar Futures Market and Implications for the TED Spread," ***Review of Futures Markets*** 13, 301-305, 1994.

Working Papers:

"Tail Risk and Return Predictability for the Japanese Equity Market," with Viktor Todorov and Masato Ubukata; Under revision for resubmission at ***Journal of Econometrics***.

"Consistent Inference for Predictive Regressions in Persistent VAR Economies," with Rasmus T. Varneskov; Under revision for submission soon.

"Information Feedback and Market Microstructure Noise: A Tale of Two Regimes," with Gokhan Cebiroglu and Nikolaus Hautsch; Under revision for resubmission at ***Journal of Econometrics***.

"Intraday Trading Invariance in the E-Mini S&P 500 Futures Market," with Oleg Bondarenko, Pete Kyle, and Anna Obizhaeva; Under revision for submission soon.

"A Corridor Fix for High-Frequency VIX: Developing Coherent Implied Volatility Measures," with Oleg Bondarenko and Maria Gonzalez-Perez; Working Paper. Under revision for submission.

"Dissection the Pricing of Equity-Index Volatility," with Oleg Bondarenko; Working Paper under Revision, Kellogg School, Northwestern University.

"Duration-Based Volatility Estimation," with Dobrislav Dobrev and Ernst Schaumburg; Working Paper, Department of Finance, Kellogg School, Northwestern University.

"On the Informational Efficiency of Option-Implied and Time Series Forecasts of Realized Volatility," with Rasmus T. Varneskov; Working Paper, Kellogg School, Northwestern University.

Outside Activities

Authored ***Brief for Amicus Curiae*** in the U.S. Court of Appeals for the Second Circuit (on appeal from the U.S. District Court for the Eastern District of New York): **18-1503** Finance Professor Torben G Andersen in support of Defendant-Appellant (**Mark Johnson**) and urging reversal. September 2018.

Uncompensated discussions of pending court cases with representatives from the Brattle Group.