

# VICTOR CHERNOZHUKOV

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## PERSONAL INFORMATION:

Birth Date: 11/21/1974  
Visa Status: U.S. Permanent Resident

## CURRENT PROFESSIONAL POSITIONS:

**Massachusetts Institute of Technology**, Department of Economics, Professor, 2008-present  
**New Economic School**, Moscow, Professor by Courtesy, 2010-present

## PREVIOUS PROFESSIONAL POSITIONS:

**University of Chicago**, Department of Economics, Visiting Associate Professor, Spring 2007  
**Massachusetts Institute of Technology**, Department of Economics, Associate Professor, 2005-2008  
**University of Chicago**, Department of Economics, Visiting Scholar, Fall of 2004  
**Massachusetts Institute of Technology**, Department of Economics, Assistant Professor, 2000-2005

## EDUCATION:

**Stanford University**, Ph.D. Economics, 2000. Dissertation: Conditional Extremes and Near-Extremes: Concepts, Inference, and Economic Applications. Committee: T. Amemiya, P. Bajari, T. MaCurdy.  
**University of Illinois at Urbana-Champaign**, M.S. Statistics, 1997

## AWARDS and HONORS:

**The Cowles Foundation Lecture**, Inaugural Speaker, North American Econometric Society Meeting, 2009  
**Fellow of the Econometric Society**, Elected in 2009  
**International Fellow**, University College London, CEMMAP, 2009  
**Alfred P. Sloan Research Fellowship**, 2005-2007  
**Castle-Krob Career Development Chair**, 2004-2007  
**Center for Advanced Behavioral Studies**, Eligible Fellow, 2005-2008  
**Arnold Zellner Award**, 2005  
Selection Committee: D. Andrews, B. Hansen, G. Koop, and A. Lewbel.

**Alfred P. Sloan Doctoral Dissertation Fellowship**, 1999-2000  
**American Collegiate Consortium Scholar**, 1993-1994

## **GRANTS:**

**National Science Foundation**, 2002-2014

## **FIELDS OF RESEARCH:**

### **Econometrics:**

- I. Large and Extremely Large Econometric Models.** Modeling, estimation, and inference with high-dimensional data in economics. Empirical applications.  
[24, 25, 26, 27, 28, 32, 33, 35, 36, 38]
- II. Quantile and Distribution Methods in Economics.** Instrumental quantile methods. Quantile and distributions regression. Counterfactual analysis. Empirical Applications.  
[2, 5, 6, 9, 10, 12, 16, 18, 21, 24, 29, 31, 36, 38]
- III. Moment Inequalities, Partial Identification, Set Estimation.** Set identification analysis, estimation, and inference in partially identified models, especially moment inequality models.  
[13, 14, 15, 16, 22, 30, 31, 32, 39, 40, 41]
- IV. Quasi-Bayesian Estimation.** A computationally attractive alternative to the extremum estimation in structural econometric models. Computational complexity analysis.  
[3, 4, 18]
- V. Shape Restrictions in Econometric Models.** Exploiting shape restrictions to improve estimation and inference on structural functions, including conditional and structural quantile functions, growth curves, and Edgeworth and Cornish-Fisher expansions.  
[19, 20, 21, 39]
- VI. Extremes and Nonstandard Models.** Model and inference for extreme and near-extreme conditional quantiles. Applications to market and birthweight risks. Estimation and inference in the nonstandard models of equilibrium search, standard auction models, and production frontiers.  
[1, 4, 7, 23]

**PAPERS:** [www.mit.edu/~vchern](http://www.mit.edu/~vchern)

**Selected published or submitted papers** (for others see website):

1. "Conditional Value-at-Risk: Aspects of Modeling and Estimation," with L. Umantsev, Empirical Economics, 26, pp. 271-293, 2001.
2. "Three-step Censored Quantile Regression and Extramarital Affairs," with H. Hong, Journal of the American Statistical Association, 2002.
3. "An MCMC Approach to Classical Estimation," with H. Hong, Journal of Econometrics, 2003.

**Awarded the 2005 Biannual Arnold Zellner Award.**

Selection Committee: D. Andrews, B. Hansen, G. Koop, and A. Lewbel.

4. "Likelihood Inference in a Class of Non-Regular Econometric Models," with H. Hong, Econometrica, vol.72 (2), pp. 1445-1480, 2004.
5. "The Impact of 401(k) Participation on the Wealth Distribution: An Instrumental Quantile Regression Analysis," with C. Hansen, The Review of Economics and Statistics, 2004.
6. "An Instrumental Variable Model of Quantile Treatment Effects," with C. Hansen, Econometrica, 2005.
7. "Extremal Quantile Regression," The Annals of Statistics, 2005.
8. "Inference on Instrumental Quantile Processes for Structural and Treatment Effect Models," with C. Hansen, Journal of Econometrics, 2006.
9. "Quantile Regression under Misspecification and the U. S. Wage Structure," with J. Angrist and I. Fernandez-Val, Econometrica, 2006.
10. "Subsampling Inference on Quantile Regression Processes (with an Application to a Re-employment Experiment)", with I. Fernandez-Val, Sankhya, 2005.
11. "Extremal Quantiles and Value-at-Risk", with Songzi Du, 2007, Palgrave Dictionary of Economics. (Non-refereed).
12. "Instrumental Variable Identification and Estimation of Non-separable Models," 2007, with G. Imbens and W. Newey, Journal of Econometrics.
13. "The Reduced Form: A Simple Approach to Inference with Weak Instruments", with C. Hansen Economics Letters, 2007.
14. "Estimation and Inference on Parameter Sets in Econometric Models," with H. Hong and E. Tamer, Econometrica, 2007.

15. "Instrumental Quantile Regression: A Robust Inference Approach," C. Hansen, Journal of Econometrics, 2007.
16. "Finite-Sample Inference in Quantile Regression Models," with C. Hansen and M. Jansson, Journal of Econometrics, 2007.
17. "Admissible Tests for Instrumental Regression," with C. Hansen and M. Jansson, Econometric Theory, 2008.
18. "Computational Complexity of MCMC-Based Estimators in Large Samples," with A. Belloni, The Annals of Statistics, 2009.
19. "Improving Point and Interval Estimators of Monotonic Functions by Rearrangement," with I. Fernandez-Val and A. Galichon, Biometrika, 2009.
20. "Rearranging Edgeworth-Cornish-Fisher Expansions," with I. Fernandez-Val and A. Galichon, Economic Theory, 2010.
21. "Quantile and Probability Curves without Crossing," with I. Fernandez-Val and A. Galichon, Econometrica, 2010.
22. "Sensitivity and Set-Identification Analysis of the Regression Model with Tobin Regressors", with T. Stocker and R. Rigobon, Quantitative Economics, 2010.
23. "Inference for Extremal Quantile Regression Models, with an Application to Market and Birthweight Risks," with I. Fernandez-Val, The Review of Economic Studies, 2011
24. "L1-Penalized Quantile Regression in High-Dimensional Sparse Models," with A. Belloni, The Annals of Statistics, 2011.
25. "High-Dimensional Sparse Econometric Models: An Introduction," with A. Belloni, Springer Lecture Notes, 2011. (Refereed)
26. "Inference Methods for High-Dimensional Sparse Econometric Models," with A. Belloni and C. Hansen, Advances in Economics & Econometrics. 10<sup>th</sup> World Congress of Econometric Society, forthcoming in 2011.  
  
-- Invited lecture presented at the World Congress, with discussion by S. Bonhomme.
27. "Square Root Lasso: Pivotal Recovery of Sparse Functions via Conic Programming", with A. Belloni and L. Wang, Biometrika, 2011.
28. "Least Squares after Model Selection in High-Dimensional Linear Regression Model", with A. Belloni, forthcoming, Bernoulli, 2011.

29. "Average and Quantile Effects in Nonlinear Panel Data Models," with J. Hahn, I. Fernandez-Val, W. Newey. Revise and Resubmit, Econometrica, 2009.
30. "Fragility of Asymptotic Agreement under Bayesian Learning," with D. Acemoglu and M. Yildiz. Revise & Resubmit at Theoretical Economics. 2009.
31. "Inference on Counterfactual Distributions," I. Fernandez-Val and Blaise Melly. Revise and Resubmit at Econometrica, 2007.
32. "Intersection Bounds: Estimation and Inference," with S. Lee and A. Rosen, Revise and Resubmit at Econometrica, 2008.
33. "Sparse Models and Methods for Instrumental Regression with Application to Eminent Domain", with A. Belloni, C. Hansen, D. Chen, Revise and Resubmit to Econometrica, 2010.
34. "Identification in Semiparametric and Nonparametric Conditional Moment Models", with X. Chen, S. Lee, and W. Newey, Revise and Resubmit to Econometrica, 2011.
35. "LASSO Methods for Gaussian Instrumental Variable Models", with A. Belloni and C. Hansen, Revise and Resubmit to Econometrics Journal, 2011.
36. "Conditional Quantile Processes based on Series or Many Regressors (with an application to gasoline demand)," with A. Belloni. Revise and Resubmit to Econometrica, 2008.
37. "Quantile Regression under Censoring and Endogeneity," with I. Fernandez-Val and A. Kowalski. Submitted, 2009.
38. "Inference on Treatment Effects with High-Dimensional Controls, with Application to Abortion and Crime", with A. Belloni and C. Hansen, Submitted, 2011.

Selected Working Papers (for others see the website).

39. "Inference on Sets in Finance", 2008, under revision, with E. Kokatulum and K. Menzel.
40. "Best Linear Approximations to Set-Identified Functions", 2009, with A. Chandraksekhar, F. Molinari, and P. Schrimpf.
41. "Learning and Disagreement under Uncertainty," with D. Acemoglu and M. Yildiz.

**SERVICE:**

Co-Editor for Economic Theory  
Co-Editor for Econometric Theory  
Associate Editor for Econometrica  
Associate Editor for Quantitative Economics  
Associate Editor for Journal of Econometrics  
Associate Editor for Econometrics Journal

**REFEREEING:**

Econometrica, Economic Theory, Journal of Econometrics, Review of Economic Studies, Annals of Statistics, Journal of the American Statistical Association, Handbook of Econometrics, National Science Foundation, National Security Agency Mathematical Science Program, Review of Economics and Statistics, Empirical Economics, Review of Financial Studies, Sankhya, Journal of Risk, Econometric Theory, Journal of Financial Econometrics