

## ALEXEI ONATSKI

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### EDUCATION

2008-2009	<b>Columbia University, School of Continuing Education</b> Elementary and Intermediate French	New York, NY
1996-2001	<b>Harvard University</b> Ph.D. in Economics, June 2001 Thesis: “Robust Monetary Policy under Model Uncertainty”	Cambridge, MA
1994-1996	<b>New Economic School</b> MA in Economics, <i>Summa cum Laude</i>	Moscow, Russia
1993-1995	<b>Moscow State University</b> PhD student in Stochastic Processes (incomplete)	Moscow, Russia
1986-1993	<b>Moscow State University</b> Department of Mechanics and Mathematics M.Sc. in Mathematics/Applied Mathematics <i>Summa cum Laude</i> Thesis: “On a Refinement of the Central Limit Theorem”	Moscow, Russia
1984-1986	<b>Kolmogorov’s specialized Physics &amp; Mathematics Boarding School</b>	Moscow, Russia

### PROFESSIONAL EXPERIENCE

2001-Present	<b>Economics Department of Columbia University</b> <i>Assistant Professor of Economics</i>	New York, NY
2005	<b>Federal Reserve Bank of New York</b> <i>Consultant</i>	New York, NY
2000	<b>New Economic School</b> <i>Visiting Professor of Economics</i>	Moscow, Russia
1997-1999 (Part-time)	<b>Harvard University</b> <i>Teaching Fellow</i> Assisted for courses in <i>Econometrics, Statistics, Time Series Econometrics, Economics of Discontinuous Change</i>	Cambridge, MA
1998-1999 (Part-time)	<b>Harvard Business School</b> <i>Teaching Fellow</i> Assisted for the course <i>Quantitative Methods</i>	Boston, MA

1998-1999 (Part-time)	<b>National Bureau of Economic Research</b> <i>Research Assistant</i>	Cambridge, MA
1997 (Part-time)	<b>Harvard Institute for International Development</b> <i>Research Assistant</i>	Cambridge, MA
1996	<b>New Economic School</b> <i>Teaching Assistant</i> Assisted for courses in <i>Statistics</i> and <i>Industrial Organization</i>	Moscow, Russia
1994	<b>Moscow State University</b> <i>Teacher of Mathematics</i> at Special Courses for Prospective Students	Moscow, Russia

## PAPERS

2009	<b>A formal statistical test for the number of factors in the approximate factor models</b> <i>Econometrica</i> 77 (5), pp. 1447-80	
	<b>Determining the number of factors from empirical distribution of eigenvalues</b> To appear in the <i>Review of Economics and Statistics</i>	
	<b>Empirical and Policy Performance of a Forward-Looking Monetary Model</b> To appear in the <i>Journal of Applied Econometrics</i> , Joint with Noah Williams	
	<b>Unit roots in white noise</b> Manuscript, Joint with Harald Uhlig. Submitted to <i>Econometrica</i>	
	<b>Asymptotics of the principal components estimator of large factor models with weak factors</b> Revised and resubmitted to <i>Journal of Econometrics</i>	
2008	<b>The Tracy-Widom limit for the largest eigenvalues of singular complex Wishart matrices</b> <i>Annals of Applied Probability</i> , Vol. 18, No. 2, 470-490	
	<b>Curve Forecasting by Functional Autoregression</b> Joint with Vladislav Kargin <i>Journal of Multivariate Analysis</i> , 99, Issue 10, pp. 2508-2526	
2006	<b>Winding Number Criterion for Existence and Uniqueness of Equilibrium in Linear Rational Expectations Models</b> <i>Journal of Economic Dynamics and Control</i> , 30, pp. 323-345	



2002	<b>Outstanding Graduate Teaching Award</b> The Association of Graduate Economic Students of Columbia University (for teaching a core econometrics course)	New York, NY
2002	<b>Summer Research Grant</b> Awarded by the Faculty Development Committee of Columbia University	New York, NY
1996-1998	<b>Graduate Student Fellowship</b> Economics Department of Harvard University	Cambridge, MA
1996	<b>Merle Fainsod Prize</b> Davis Center for Russian and Eurasian Studies at Harvard Awarded to top incoming graduate students in the field of Russian, Soviet, or post-Soviet studies	Cambridge, MA
1996	<b>Second Prize for Outstanding Master's Thesis</b> New Economic School	Moscow, Russia
1994-1996	<b>Special Stipend</b> New Economic School Awarded to students with higher GPA	Moscow, Russia
1986-1993	<b>Special Stipend</b> Moscow State University	Moscow, Russia
1984	<b>Fourth Prize at All-Soviet Union Mathematics Olympiad</b>	Ashhabad, Russia
1984	<b>Third Prize at All-Russia Mathematics Olympiad</b>	Nalchik, Russia

## TEACHING

2002-04 2007 2009 2009	<b>Introduction to Econometrics II, G6412</b> (Core graduate level course)
2005-09	<b>Topics in Econometrics II, G6428</b> (Topics include: inverse problems in econometrics, factor models, empirical likelihood)
2004, 2006-07	<b>Introduction to Econometrics, W3412</b> (Core undergraduate course)
2004-05	<b>Econometrics of Monetary Policy, G6429</b> (Applied macro-econometrics course including estimation of DSGE models and structural VAR analysis)
2002-04	<b>Quantitative Methods for Economic Analysis, U4609</b> (Master's level class)
1999	<b>Intermediate Macroeconomics, W3213</b> (Undergraduate level)
	<b>Time series analysis</b> (A course for Harvard Kennedy School students)

## STUDENTS ADVISING

2009	<b>Simeon Tsonev</b>	Sponsor
2008	<b>Yuki Sakasai</b> , foreign exchange strategist at Barclays Bank, Tokyo	Inside Reader
2007	<b>Sungjun Cho</b> , Equity Trader at Deutsche Bank, New York	Outside Reader
2006	<b>Marcos Alvarez Diaz</b> , Associate professor at the University of the Balearic Islands, Spain	Inside Reader
2004	<b>Seonghoon Cho</b> , Assistant Professor of Economics, Yonsei University	Outside Reader
2003	<b>Antonio Moreno</b> , Assistant professor at Universidad de Navarra, Spain	Inside Reader
2003	<b>Francesco Saraceno</b> , professor at Sciences Po, Paris	Inside Reader
2002	<b>Anton Granik</b> , associate professor at Reims Management School, France	Sponsor
2002	<b>Niklas Westelius</b> , assistant professor in the economics department at Hunter College, New York	Outside Reader

## PROFESSIONAL INTERESTS

Econometrics of Large Dimensional Data, Time Series, Random Matrix Theory, Functional Data Analysis, Monetary Policy and Robust Control, Model Uncertainty in Macroeconomics and Finance

## WORK IN PROGRESS

2009	<b>Distortions in the FAVAR Analysis of Monetary Policy</b> (Joint with Francisco Ruge-Murcia)
2009	<b>Characteristic Roots of Estimated VARs</b> (Joint with Harald Uhlig)
2009	<b>Asymptotic Efficiency of the Tests for the Number of Factors</b>
2009	<b>Testing Shape Restrictions on the Ergodic Distribution of Markov Chains</b>

## SELECTED CONFERENCE PRESENTATIONS

October 2009	<b>CIRANO-CIREQ Conference on Econometrics of Interactions.</b> Present “Asymptotics of the Principal Components Estimator of Large Factor Models with Weak Factors”	Montreal, Canada
September 2009	<b>NBER-NSF Time Series Conference.</b> Poster presentation of “Asymptotics of the principal components estimator of large factor models with weak factors”	Davis, CA
June 2009	<b>North American Summer Meeting of the Econometric Society</b> Presented “Asymptotics of the principal components estimator of large factor models with weak factors”	Boston, MA
September 2008	<b>NBER-NSF Time Series Conference.</b> Presented “Unit Roots in White Noise”	Aarhus, Denmark
May 2008	<b>NY Area Workshop on Monetary Policy.</b> Discussed “Macroeconomic Dynamics in Euro Area” by J. Boivin, M. Giannoni and B. Mojon.	New York, NY
January 2008	<b>North American Winter Meeting of the Econometric Society</b> Presented “The principal components estimation of large factor models when factors are weak”	New Orleans, LA
December 2007	<b>Greater New York Area Metropolitan Econometrics Colloquium</b> Presented “A Formal Statistical Test for the Number of Factors in the Approximate Factor Models”	Philadelphia, PA
July 2007	<b>Vienna Symposia on Asset Management.</b> Presented “Curve Forecasting by Functional Autoregression”	Vienna, Austria
July 2007	<b>NBER Summer Institute.</b> Presented “A Formal Statistical Test for the Number of Factors in the Approximate Factor Models”	Boston, MA
May 2007	<b>CIREQ Conference on Financial Econometrics.</b> Discussed “Structural Estimation of High-Dimensional Factor Models: Uncovering the Effect of Global Factors on the US Economy” by M. Harding	Montreal, Canada
September 2006	<b>NBER-NSF Time Series Conference,</b> Presented “A Formal Statistical Test for the Number of Factors in the Approximate Factor Models”	Montreal, Canada
July 2006	<b>NBER Summer Institute.</b> Presented “Asymptotic distribution of the principal Components Estimator of Large Spherical Factor Models”	Boston, MA
January 2006	<b>North American Winter Meeting of the Econometric Society.</b> Presented “Curve Forecasting by Functional Autoregression” Discussant for “Recursive Robust Estimation and Control Without Commitment” by L.P. Hansen and T.J. Sargent	Boston, MA
October 2005	<b>Workshop on Empirical Methods and Applications for Dynamic Stochastic General Equilibrium Models and Factor Models</b> Discussed “Monetary Policy Analysis with Potentially Misspecified Models” by M. Del Negro and F. Schorfheide	Cleveland, OH
July 2005	<b>NBER Summer Institute.</b> Presented “Determining the Number of Factors from Empirical Distribution of Eigenvalues”	Boston, MA
September 2004	<b>Workshop on Empirical Methods and Applications for Dynamic Stochastic General Equilibrium Models.</b> Presented “Empirical and policy performance of a forward looking monetary model”	Cleveland, OH

July 2003	<b>Learning and Macroeconomic Dynamics.</b> Presented “Modeling Model Uncertainty”	Seattle, WA
July 2003	<b>NBER Economic Fluctuations and Growth Working group on Forecasting &amp; Empirical Methods in Macroeconomics and Finance.</b> Presented “Modeling Model Uncertainty”	Cambridge, MA
April 2003	<b>Workshop on Robustness</b> organized by Federal Reserve Bank of Cleveland. Presented “Modeling Model Uncertainty”	Cleveland, OH
June 2002	<b>International Seminar on Macroeconomics,</b> NBER and European Central Bank. Presented “Modeling Model Uncertainty”	Frankfurt, Germany
December 2002	<b>The State of Economics and of Transition,</b> a conference organized by New Economic School in cooperation with CEFIR, EERC, SITE, and WDI. Presented “Modeling Model Uncertainty”	Moscow, Russia
November 2002	<b>Monetary Policy and the Labor Market in the U.S., the Euro-area and Japan</b> organized by The Center for Economic Policy Analysis and the Economics Department of the New School University. Discussed “Estimates of the Effectiveness of Monetary Policy” by Ray Fair	New York, NY
January 2002	<b>Annual Meeting of the American Economic Association</b> Discussed “Identifying VARs based on High Frequency Futures Data” by Faust, Swanson and Wright and “Econometric Estimation When the True Model Errors are Observed” by Swanson	Atlanta, GA
November 2001	<b>Macroeconomic Policy in a Dynamic, Uncertain Economy,</b> NBER. Presented “Robust Monetary Policy under Model Uncertainty: Incorporating Rational Expectations”	Cambridge, MA
January 2001	<b>Annual Meeting of the American Economic Association</b> Presented “Robust Monetary Policy under Model Uncertainty: Incorporating Rational Expectations”	New Orleans, LA
November 2000	<b>Carnegie-Rochester Conference on Public Policy</b> Presented “Searching for Prosperity”	Pittsburg, PA
August 2000	<b>Econometric Society World Congress</b> Presented “Minimax Analysis of Monetary Policy under Model Uncertainty”	Seattle, WA
April 2000	<b>Meeting of the MacArthur Foundation Network on Economic Inequality and Social Interactions.</b> Presented “Hypothesis Tests on the Steady State Distribution of World Income”	Los Angeles, CA
March 1999	<b>The 6-th Annual Conference on Monetary Economics and Monetary Policy</b> organized by Stanford Institute for Economic Policy Research and San Francisco Fed. Presented “Robust Monetary Policy under Model Uncertainty in a Small Model of the US Economy”	Palo Alto, CA

## REFEREEING ACTIVITY

Referee for: *Econometrica*, *Review of Economics and Statistics*, *Journal of Monetary Economics*, *Journal of Economic Dynamics and Control*, *American Economic Review*, *Journal of European Economic Association*, *The Economic Journal*, *The Journal of Applied Econometrics*, *Journal of Money, Credit and Banking*, *Review of Economic Dynamics*, *Journal of Empirical Finance*, *Annals of*

*Applied Probability, Annals of Statistics, National Science Foundation.*

## **OTHER**

Member of the editorial board of Russian econometric journal *Quantile*.  
Member of American Economic Association

## **PERSONAL INFORMATION**

Date of Birth: June 17, 1969  
Marital Status: Married, have two daughters  
Languages: Russian (Native), English (Fluent), French (Basic)  
Immigration status: Permanent resident (Green Card)