



**SIXTEENTH ANNUAL SYMPOSIUM  
OF  
THE SOCIETY FOR NONLINEAR DYNAMICS AND ECONOMETRICS  
APRIL 3 – APRIL 4, 2008  
FEDERAL RESERVE BANK OF SAN FRANCISCO**

## THURSDAY, APRIL 3

- 8:00 – 8:45      **REGISTRATION (FRONT LOBBY)**  
**CONTINENTAL BREAKFAST (EAST GARDEN COURT LOBBY, 4<sup>TH</sup> FLOOR)**
- 8:30 – 8:45      **WELCOME (CENTRAL 4)**
- 9:00 - 10:30      **SESSION 1: INVITED SESSION: MACRO (4 EAST)**  
Chair: Russell Cooper (University of Texas at Austin)
- Stability Theorems for Systems with Bayesian Learners  
James Bullard (Federal Reserve Bank of St. Louis)  
*Jacek Suda* (Washington University in St. Louis)
- Monetary Policy and Shifts in TFP Growth  
*Troy Davig* (Federal Reserve Bank of Kansas City)
- Regime-Switching in Rational Expectations Econometric Models  
*William A. Branch* (University of California Irvine)  
*Giuseppe Ragusa* (University of California Irvine)
- 9:00 - 10:30      **SESSION 2: VOLATILITY MODELING (4 WEST)**  
Chair: Anders Rahbek (University of Copenhagen)
- A Nonparametric Approach to Estimate Volatility and Correlation Dynamics  
*Vanessa Mattiussi* (City University - London)  
*Giulia Lori* (City University - London)
- Estimation of Stochastic Volatility Models by Nonparametric Filtering  
*Dennis Kristensen* (Columbia University)  
*Shin Kanaya* (University of Wisconsin)
- Bayesian Semiparametric Stochastic Volatility Modeling  
*Mark J. Jensen* (Federal Reserve Bank of Atlanta)  
*John M. Maheu* (University of Toronto)
- 9:00 - 10:30      **SESSION 3: ASSET PRICING (CENTRAL 4A)**  
Chair: Michael Dueker (Russell Investments)
- Joint Modeling of Call and Put Implied Volatility  
*Katja Ahoniemi* (Helsinki School of Economics and HECER)  
*Markku Lanne* (University of Helsinki and HECER)
- Assets Returns Volatility and Investment Horizon:  
*Frederique Bec* (CREST and THEMA University of Cergy-Pontoise, France)  
*Christian Gollier* (Toulouse School of Economics, LERNA and IDEI, France)
- A Non-parametric Investigation of Risk Premia  
*Chiara Peroni* (University of East Anglia, RCEA)

- 9:00 - 10:30     **SESSION 4: DYNAMICS (CENTRAL 4B)**  
Chair: Willi Semmler (New School University)
- Is Ignorance Bliss? The Cost of Business-Cycle Uncertainty  
*Stefano d'Addona* (University of Rome 3)  
Frode Brevik (St. Gallen University)
- Filtering Time Series with Penalized Splines  
*Goeran Kauermann* (University Bielefeld)  
Tatyana Krivobokova (Katholieke Universiteit Leuven)  
Willi Semmler (New School for Social Research)
- Econophysics and Economic Complexity  
*J. Barkley Rosser, Jr.* (James Madison University)
- 10:30 – 11:00     **COFFEE/TEA (EAST GARDEN COURT LOBBY, 4<sup>TH</sup> FLOOR)**
- 11:00 - 12:30     **SESSION 5: INVITED SESSION: TIME SERIES (4 EAST)**  
Chair: Mark Jensen (Federal Reserve Bank of Atlanta)
- Bayesian Model Selection for Structural Break Models  
Andrew Levin (Federal Reserve Board)  
*Jeremy Piger* (University of Oregon)
- The Predictive Power of Output Gap Measures Generated by Nonlinear Models  
Richard Luger (Emory University)  
*David E. Rapach* (Saint Louis University)
- The Asymmetric Business Cycle  
*John Morley* (Washington University in St. Louis)  
Jeremy Piger (University of Oregon)
- 11:00 - 12:30     **SESSION 6: ADVANCES IN BUSINESS CYCLE ANALYSIS (4 WEST)**  
Chair: Troy Davig (Federal Reserve Bank of Kansas City)
- Euler-Equation Estimation for Discrete Choice Models: A Capital Accumulation Application  
*Russell Cooper* (University of Texas)  
John Haltiwanger (University of Maryland)  
Jonathan Willis (Federal Reserve Bank of Kansas City)
- Capital-Labor Substitution and Equilibrium Indeterminacy Under Increasing Returns to Scale  
*Jang-Ting Guo* (University of California, Riverside)  
Kevin J. Lansing (Federal Reserve Bank of San Francisco)
- Speculative Growth and Overreaction to Technology Shocks  
*Kevin J. Lansing* (Federal Reserve Bank of San Francisco)

- 11:00 - 12:30    **SESSION 7: ARCH/GARCH (CENTRAL 4A)**  
Chair: Richard Ashley (Virginia Tech)
- Addressing the IGARCH Puzzle  
*Anders Tolver Jensen* (University of Copenhagen)  
*Theis Lange* (University of Copenhagen)
- Falsifying ARCH/GARCH Models Using Bispectral Based Tests  
*Melvin J. Hinich* (The University of Texas at Austin)
- GARCH Process with Persistent Covariates  
*Heejoon Han* (National University of Singapore)
- 11:00 - 12:30    **SESSION 8: MONETARY POLICY (CENTRAL 4B)**  
Chair: Carl Chiarella (University of Technology, Sydney)
- Optimal Backward and Forward Monetary Policy Under Rational Expectations  
*Peter A. Zadrozny* (Bureau of Labor Statistics)
- Monetary Policy and Stock Market Booms and Busts in the 20th Century  
*Michael Bordo* (Rutgers University)  
*Michael Dueker* (Russell Investments)  
*David Wheelock* (Federal Reserve Bank of St. Louis)
- Monetary Policy and Endogenous Cycles with Cost Channel Heterogeneity  
*Marco Airaudo* (Collegio Carlo Alberto, Italy)  
*Luis-Felipe Zanna*, IMF
- 12:30 – 14:00    **LUNCH (MARKET STREET DINING ROOM, 4<sup>TH</sup> FLOOR)**
- 14:00 - 15:30    **SESSION 9: INVITED SESSION: ECONOMETRICS (4 EAST)**  
Chair: Christian Dahl (University of Aarhus)
- Classical and Bayesian Analysis of a Probit Panel Data Model with Unobserved Individual Heterogeneity and Autocorrelated Errors  
*Martin Burda* (University of Toronto)  
*Roman Liesenfeld* (Christian-Albrecht-University, Kiel)  
*Jean-Francois Richard* (University of Pittsburgh)
- Finite Sample Bias Corrected IV Estimation for Weak and Many Instruments  
*Matthew Harding* (Stanford University)  
*Jerry Hausman* (MIT)
- Money-Income Granger-Causality in Quantiles  
*Tae-Hwy Lee* (Univeristy of California, Riverside)  
*Weiping Yang* (Capital One Financial Research)

- 14:00 - 15:30    **SESSION 10: ASSET PRICE DYNAMICS AND MACRO (4 WEST)**  
 Chair: Sebasatiano Manzan (Baruch College, CUNY)
- Learning about the Interdependence between the Macroeconomy and the Stock Market  
*Fabio Milani* (University of California, Irvine)
- Measuring the Substitutability of Housing and Non-housing Consumption: A Structural Approach  
*Wenli Li* (Federal Reserve Bank of Philadelphia)  
*Haiyong Liu* (East Carolina University)  
*Rui Yao* (Baruch College)
- Learning and Adaptation as a Source of Market Failure  
*David Goldbaum* (University of Technology Sydney)
- 14:00 - 15:30    **SESSION 11: UNIT ROOT TESTS (CENTRAL 4A)**  
 Chair: Otilia Boldea (University of Tilburg)
- A Nonlinear Panel Unit Root Test under Cross Sectional Dependence  
*Mario Cerrato* (London Metropolitan University)  
*Nicholas Sarantis* (London Metropolitan University)  
*Christian de Peretti* (University of Evry-Val-d'Essonne, France)
- Testing for a Unit Root in the Asymmetric Nonlinear Smooth Transition Framework  
*Razvan Pascualu* (University of Alabama)
- Panel LM Unit Root Tests with Trend Shifts  
*Kyung-So Im* (Federal Deposit Insurance Corporation)  
*Junsoo Lee* (University of Alabama)  
*Margie Tieslau* (University of North Texas)
- 14:00 - 15:30    **SESSION 12: FX I (CENTRAL 4B)**  
 Chair: Helinä Laakkonen (FDPE and University of Jyväskylä)
- Searching for Nonlinearities in Real Exchange Rates  
*Yamin Ahmad* (University of Wisconsin - Whitewater)  
*Stuart Glosser* (University of Wisconsin - Whitewater)
- A Bayesian Analysis of Exchange Rate Dynamics  
*Ming Chien Lo* (St. Cloud State University)  
*James Morley* (Washington University)
- The High-Frequency Response of the EUR-US Dollar Exchange Rate to ECB Communication  
*Christian Conrad* (KOF Swiss Economic Institute, ETH Zurich)  
*Michael J. Lamla* (KOF Swiss Economic Institute, ETH Zurich)
- 15:30 – 16:00    **COFFEE/TEA (EAST GARDEN COURT LOBBY, 4<sup>TH</sup> FLOOR)**

16:00 - 17:30

**SESSION 13: MACRO LEARNING (4 EAST)**

Chair: Cees Diks (CeNDEF, University of Amsterdam)

Learning, Expectations Formation, and the Pitfalls of Optimal Control Monetary Policy

*John C. Williams* (Federal Reserve Bank of San Francisco)

Athanasios Orphanides (Central Bank of Cyprus)

Bounded Rationality and State-Dependent Sticky Plans

*James Costain* (Bank of Spain)

Anton Nakov (Bank of Spain)

Monetary Policy, Model Uncertainty and Exchange Rate Volatility

*Agnieszka Markiewicz* (Catholic University of Leuven)

16:00 - 17:30

**SESSION 14: NONLINEAR TIME SERIES I (4 WEST)**

Chair: Jeremy Piger (University of Oregon)

Likelihood-Based Inference in Nonlinear Error-Correction Models

*Anders Rahbek* (University of Copenhagen and CREATES)

Dennis Kristensen (Columbia University and CREATES)

The Additive Random Field Regression Model

*Christian M. Dahl* (University of Aarhus)

Gloria Gonzalez-Rivera (University of California, Riverside)

Yu Qin (Countrywide Financial Corporation)

Estimation and Inference in Unstable Nonlinear Least Squares Models

*Otilia Boldea* (Tilburg University)

Alastair R. Hall (NCSU and Univ. of Manchester)

16:00 - 17:30

**SESSION 15: GROWTH AND THE EQUITY PREMIUM PUZZLE (CENTRAL 4A)**

Chair: Goeran Kauermann (University Bielefeld)

Housing Prices and Growth

*James A. Kahn* (Federal Reserve Bank of New York and New York University)

Medium Term Growth Reversals

*Michal Jerzmanowski* (Clemson University)

David Cuberes (Clemson University)

Idiosyncratic Production Risk and the Equity Premium Puzzle

*Geoffrey Dunbar* (Simon Fraser University)

16:00 - 17:30    **SESSION 16: MUTUAL AND HEDGE FUNDS (CENTRAL 4B)**  
Chair: Douglas M. Patterson (Virginia Tech)

Time Evolution Of Mutual Fund Dynamics  
*Yonathan Schwarzkopf* (California Institute of Technology and Santa Fe Institute)  
J. Doyne Farmer (Santa Fe Institute)

Hedge Funds Are Not Destabilizing  
*Celso Brunetti* (Johns Hopkins University)  
Michael S. Haigh (Societe Generale)

Realized Portfolio Selection in the Euro Area.  
*Claudio Morana* (Universita' del Piemonte Orientale)

17:30 – 19:30    **RECEPTION (WEST MARKET LOUNGE, 4<sup>TH</sup> FLOOR)**

## **FRIDAY, APRIL 4**

8:00 – 8:55    **CONTINENTAL BREAKFAST (EAST GARDEN COURT LOBBY, 4<sup>TH</sup> FLOOR)**

9:00 - 10:30    **SESSION 17: ASSET PRICES, INDETERMINACY, AND COMPLEX DYNAMICS (4 EAST)**  
Chair: Barkley Rosser, Jr. (James Madison University)

Dynamic Consumption and Portfolio Decisions with Time Varying Asset Returns  
Lars Gruene (University of Bayreuth)  
Caroline Oehrlein (University of Bayreuth)  
*Willi Semmler* (New School for Social Research)

Euler Equation Branching  
Brian Raines (Baylor University)  
*David R. Stockman* (University of Delaware)

Consistent Route to Randomness  
*Maciej K. Dudek* (National Bank of Poland & Main School of Commerce)

9:00 - 10:30    **SESSION 18: INFLATION AND THE GREAT MODERATION (4 WEST)**  
Chair: Gerald Dwyer (Federal Reserve Bank of Atlanta)

A Resolution to the Price Puzzle  
*Marcelle Chauvet* (University of California)

Oil and the Great Moderation  
*Anton Nakov* (Banco de España)  
Andrea Pescatori (Federal Reserve Bank of Cleveland)

Inflation Targeting in Canada: An Expected Loss Analysis by a DSGE Model with Trade Costs  
*Hakan Yilmazkuday* (Vanderbilt University)

- 9:00 - 10:30     **SESSION 19: FX II (CENTRAL 4A)**  
Chair: Yamin Ahmad (University of Wisconsin - Whitewater)
- Exchange Rate Volatility and First-Time Entry by Multinational Firms  
*Katheryn Russ* (University of California, Davis and NBER)
- Asymmetric News Effects on Exchange Rate Volatility: Good vs. Bad News in Good vs. Bad Times  
*Helinä Laakkonen* (University of Jyväskylä)  
Markku Lanne (University of Helsinki)
- Stochastic Bifurcation Analysis of an Exchange Rate Model  
*Carl Chiarella* (The University of Technology, Sydney)  
X. He (The University of Technology, Sydney)  
M. Zheng (The University of Technology, Sydney)
- 9:00 - 10:30     **SESSION 20: EQUITY AND BOND MARKETS (CENTRAL 4B)**  
Chair: Claudio Morana (Universita' del Piemonte Orientale)
- Testing and Modeling Threshold Asymmetries in Multivariate Distributions of U.S. Equity Returns  
*Emre Yoldas* (University of California, Riverside)
- Nonlinear Mutual Prediction Test for Synchronization of Stock Markets  
*Abdol S. Soofi* (University of Wisconsin-Platteville)  
Li Zhe (Harbin Institute of Technology)  
Xiaofeng Hui (Harbin Institute of Technology)
- Macroeconomic Variables, Euler Equation and Future Returns on Treasury Bonds: (Semi) Nonparametric Investigation  
*Ai-ru (Meg) Cheng* (University of California at Santa Cruz)  
Yuriy Kitsul (Georgia State University)
- 10:30 – 11:00     **COFFEE/TEA (EAST GARDEN COURT LOBBY, 4<sup>TH</sup> FLOOR)**
- 11:00 - 12:30     **SESSION 21: LONG MEMORY (4 EAST)**  
Chair: Ivan Paya (Lancaster University)
- Semi Parametric Estimation of Long Memory: Holy Grail or Poisoned Chalice?  
*Richard T. Baillie* (Michigan State University & QMUL)  
George Kapetanios (QMUL)
- Estimating DSGE Models with Long Memory Dynamics  
*Gianluca Moretti* (Bank of Italy)  
Giulio Nicoletti (Bank of Italy)
- Dual Long Memory, Structural Breaks and the Link Between Turnover and Range Based Volatility  
Menelaos Karanasos (Brunel University, UK)  
*Aris Kartsaklas* (University of York, UK)



- 11:00 - 12:30    **SESSION 22: BUBBLES AND CRASHES (4 WEST)**  
 Chair: David Stockman (University of Delaware)
- A Tension Model of Financial Crashes  
 George Chang (Grand Valley State University)  
*James Feigenbaum* (University of Pittsburgh)
- Did Herding Cause the Stock Market Bubble of 1998-2001?  
*Douglas M. Patterson* (Virginia Tech)  
 Vivek Sharma (University of Michigan-Dearborn)
- Sovereign Spreads, Currency Crises, and Fundamentals: A Non-linear Analysis  
*Melisso Boschi* (University of Essex, University of Perugia)
- 11:00 - 12:30    **SESSION 23: HIGH FREQUENCY FINANCE (CENTRAL 4A)**  
 Chair: Celso Brunetti (Johns Hopkins University)
- Intraday Overreaction of Stock Prices  
 Martin Becker (Saarland University)  
 Ralph Friedmann (Saarland University)  
*Stefan Klößner* (Saarland University)
- The Microstructure of a U.S. Treasury ECN: The BrokerTec Platform  
 Michael Fleming (Federal Reserve Bank of New York)  
*Bruce Mizrach* (Rutgers University)
- A New Approach to Understanding the Market Impact of Large Trading Orders  
*Austin Gerig* (Santa Fe Institute)  
 J. Doyne Farmer (Santa Fe Institute and LUISS Guido Carli)  
 Fabrizio Lillo (Santa Fe Institute and INFM Unita di Palermo)  
 Henri Waelbroeck (Pipeline Financial Group, Inc. )
- 11:00 - 12:30    **SESSION 24: FORECAST EVALUATION AND COMBINATION (CENTRAL 4B)**  
 Chair: Ming Lo (St. Cloud State University)
- Weighted Likelihood Ratio Scores for Evaluating Density Forecasts in Tails  
*Cees Diks* (CeNDEF, University of Amsterdam)  
 Valentyn Panchenko (University of New South Wales)  
 Dick van Dijk (Erasmus University Rotterdam)
- Multivariate Forecast Evaluation and Rationality Testing  
*Michael Owyang* (Federal Reserve Bank of St. Louis)  
 Ivana Komunjer (UCSD)
- Time-Varying Combination of Volatility Forecasts: An Empirical Analysis for the Mexican Peso-  
 US Dollar Exchange Rate  
*Carlos Capistrán*, Banco de Mexico  
 Guillermo Benavides, Banco de Mexico
- 12:30 – 14:00    **LUNCH (MARKET STREET DINING ROOM, 4<sup>TH</sup> FLOOR)**

- 14:00 - 15:30    **SESSION 25: INTERNATIONAL MACRO (4 EAST)**  
 Chair: Frederique Bec (CREST and THEMA University of Cergy-Pontoise, France )
- International Real Business Cycles and the Real Exchange Rate: A Nonlinear Perspective  
 Themis Pavlidis (Lancaster University Management School)  
*Ivan Paya* (Lancaster University Management School)  
 David Peel (Lancaster University Management School)
- Monetary Policy in a Small Open Economy  
*Enrique Martinez-Garcia* (Federal Reserve Bank of Dallas)
- Instability and Nonlinearity in the Euro Area Phillips Curve  
*Alberto Musso* (ECB)  
 Livio Stracca (ECB)  
 Dick van Dijk (Erasmus University Rotterdam)
- 14:00 - 15:30    **SESSION 26: NONLINEAR TIME SERIES II (4 WEST)**  
 Chair: Chiara Peroni (University of East Anglia)
- Autocontours: Dynamic Specification Testing  
 Gloria Gonzalez-Rivera (University of California, Riverside)  
 Zeynep Senyuz (University of California, Riverside)  
*Emre Yoldas*, University of California, Riverside
- Factor Decomposition of Varma Models Based on Weighted Forecast-Error Covariances: Applied to Forecasting Quarterly U.S. GDP at Monthly Intervals  
*Baoline Chen* (Bureau of Economic Analysis)  
 Peter A. Zadrozny (Bureau of Labor Statistics)
- A Threshold Model for Firms' Investment over the Business Cycle  
*Juri Marcucci* (Bank of Italy)  
 Francesca Lotti (Bank of Italy)
- 14:00 - 15:30    **SESSION 27: NONLINEAR MACRO (CENTRAL 4A)**  
 Chair: Michael Owyang (Federal Reserve Bank of St. Louis)
- Estimating Nonlinear DSGE Model Using Approximate Likelihood Functions  
*Giuseppe Ragusa* (UCI)  
 Raffaella Giacomini (UCL)  
 Barbara Rossi (Duke University)
- Statistical Contributions of Business Cycle Indicators in Nowcasting Business Cycle Regimes  
*Arabinda Basistha* (West Virginia University)
- Yield Curve in an Estimated Nonlinear Macro Model  
*Taeyoung Doh* (Federal Reserve Bank of Kansas City)

14:00 - 15:30    **SESSION 28: NUISANCE PARAMETERS AND ARCH/GARCH (CENTRAL 4B)**

Chair: Katja Ahoniemi (Helsinki School of Economics)

Valid Inference for a Class of Models Where Standard Inference Performs Poorly; Including Nonlinear Regression, ARMA, GARCH, and Unobserved Components

*Jun Ma* (University of Alabama)

Charles R. Nelson (University of Washington)

On the Origins of Conditional Heteroscedasticity in Time Series

*Richard Ashley* (Virginia Tech)

The Persistence in Inflation and Output Growth and the Importance of the Latter for the Performance-Uncertainty Link

*Menelaos Karanasos* (Brunel University)

Ning Zeng (Brunel University)

15:30 – 16:00    **COFFEE/TEA (EAST GARDEN COURT LOBBY, 4<sup>TH</sup> FLOOR)**

16:00 - 17:30    **SESSION 29: CRAIG HIEMSTRA MEMORIAL LECTURE (CENTRAL 4)**

Regional Business Cycles

*James D. Hamilton* (University of California, San Diego)