

Curriculum Vitae¹

Massimo Franchi

Personal Information

Date and place of birth: 27/02/1974 Lavagna (GE), Italy.

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Current position

November 2008 - today: Assistant professor at University of Rome “La Sapienza”.

Research interests

Multivariate Time Series Analysis, Cointegration, Common features.

Linear Algebra, Matrix functions, Canonical forms, Spectral analysis.

Main publications

- (1) with P. Paruolo, Inversion of regular analytic matrix functions: local Smith form and subspace duality (2011), *Linear Algebra and its Applications* 435, p.2896-2912.
- (2) with J. Ordóñez, Multiple equilibria in Spanish unemployment (2011), *Structural Change and Economic Dynamics* 22, p.71-80.
- (3) with P. Paruolo, A characterization of vector autoregressive processes with common cyclical features (2011), *Journal of Econometrics* 163, p.105-117.
- (4) A representation theory for polynomial cofractionality in vector autoregressive models (2010), *Econometric Theory* 26, p.1201-1217.
- (5) with J. Ordóñez, Common smooth transition trend-stationarity in European unemployment (2008), *Economics Letters* 101(2), p.106-109.
- (6) with K. Juselius, Taking a DSGE model to the data meaningfully (2007), *Economics E-Journal*, vol.1.
- (7) The integration order of vector autoregressive processes (2007), *Econometric Theory* 23(3), p.546-553.

Work in progress

- (1) Cointegration, serial correlation common features and the local Smith form, 2011.
- (2) with P. Paruolo, Laurent series representation by local rank factorization, 2011
- (3) with P. Paruolo, Normal forms of regular matrix polynomials via local rank factorization, DSS Empirical Economics and Econometrics Working Papers Series n.1, 2011.
- (4) with P. Paruolo, Stochastic cycles in VAR processes, 2009.
- (5) Un-hiding roots in vector autoregressive processes, 2008.
- (6) On the representation theory of fractional processes, 2006.
- (7) General unit roots structures: representation theory, 2006.
- (8) A note on Lemma 1 in Granger Representation theorem, 2006.
- (9) Is the U.S. Current Account Deficit Sustainable? Evidence from a Cointegrated VAR model, 2005.

¹Updated on September 13, 2011.

Other publications and discussion papers

- (1) Econometria (2006), in *Enciclopedia Italiana Treccani XXI Secolo*.
- (2) A general representation theorem for integrated vector autoregressive processes (2006), *Discussion paper University of Copenhagen Institute of Economics* n.06-16.
- (3) with G. Cerulli, The role of a priori knowledge in business-cycle measurement (2005), *Congiuntura* n.40, p.61-87.
- (4) A priori inequality restrictions and bound analysis in VAR models (2004), *Discussion paper University of Copenhagen Institute of Economics* n.04-14.
- (5) Best execution, multiple trading venues e sistemi di scambi organizzati: alcune considerazioni generali ed un'analisi empirica del mercato dei Titoli di Stato (2003), *Quaderni di Finanza CONSOB* n.56.
- (6) A non causal identification scheme for vector autoregressions (2002), *Department of Economic Science Discussion Paper* n.41.
- (7) Fondamenti teorici della politica monetaria: perche' la politica di inflation targeting e' ottimale? (2000), *Annali Fondazione Luigi Einaudi*, vol.XXXIV, p.31-54.

Education

July 2004: Ph.D. in Economics, Department of Economics, Faculty of Statistics, University of Rome "La Sapienza". Title of the thesis: "*Identification through qualitative a priori restrictions*". Supervisor: Prof. Marco Lippi.

August 2001: Scuola Matematica Interuniversitaria (SMI), Perugia. Courses and grades: Probability (A) and Complex Analysis (B).

July 2000: M.Sc. in Economics, Universitat Pompeu Fabra, Barcellona.

April 1999: B.A. with honors in Economics, Faculty of Economics, University of Rome "La Sapienza". Supervisor: Prof. Giancarlo Gandolfo.

Grants, visiting positions and fellowships

October 2007 - September 2009: Carlo Giannini Fellow in Econometrics, University of Insubria, Varese, in collaboration with Prof. Paolo Paruolo.

February - May 2007: Visiting Associate Professor, Institute for Mathematical Sciences, University of Copenhagen.

October 2006 - January 2007: Visiting Professor, Department of Economics, Universitat Jaume I, for the project: "*Application of STAR and STAR-GARCH models to economic data*", in collaboration with Prof. Javier Ordóñez Monfort.

September 2005 - August 2006: Assistant Research Professor (Post Doc), Department of Economics, University of Copenhagen.

July 2005 - July 2007: Renewal of Post Doc fellowship in Econometrics, Department of Economics, University of Rome "La Sapienza".

January - July 2004: Marie Curie fellowship, Department of Economics, University of Copenhagen, for the project: "*Identification issues in the Cointegrated VAR model*". Faculty member: Prof. Katarina Juselius.

July 2003 - July 2005: Post Doc fellowship in Econometrics, Department of Economics, University of Rome "La Sapienza", for the project: "*The econometrics of cointegration*". Faculty member: Prof. Enrico Zaghini.

March 2002 - January 2004: CONSOB fellowship (first classified), for the project: "*Empirical analysis of Alternative Trading Systems (ATS)*". CONSOB member: Dott. Barbara Leoni.

October 2000 - June 2003: Ph.D. fellowship (first classified), Department of Economics, University of Rome "La Sapienza".

September 2000 - November 2000: Economist, Research Department, San Paolo Imi Bank.

September 1999 - July 2000: Fondazione Luigi Einaudi fellowship, M.Sc. in Economics at Universitat Pompeu Fabra, Barcelona.

Conferences and seminars

- (1) “Normal forms of regular matrix polynomials via local rank factorization”, 17th ILAS Conference, Braunschweig, August 2011.
- (2) “Stochastic cycles in VAR processes”, ICEEE, Pisa, January 2011.
- (3) “————”, 6th Eurostat Colloquium on Modern Tools for Business Cycle Analysis, Luxembourg, September 2010.
- (4) “————”, Conference in Memory of Carlo Giannini, Roma, January 2010.
- (5) “A characterization of VAR with common cyclical features”, Econometrics, Time Series Analysis and Systems Theory, Conference in Honor of Manfred Deistler, Wien, June 2009.
- (6) “————”, ICEEE, Ancona, January 2009.
- (7) “————”, Factor Structures for Panel and Multivariate Time Series Data Conference, Maastricht, September 2008.
- (8) “————”, NBER-NSF Time Series Conference, Århus, September 2008.
- (9) “A representation theory for polynomial cofractionality in vector autoregressive models”, European Econometric Society Meeting (ESEM), Milano, August 2008.
- (10) “————”, Conference in Memory of Carlo Giannini, Bergamo, January 2008.
- (11) “————”, Tinbergen Institute Conference, Rotterdam, March 2007.
- (12) “————”, Italian Congress of Econometrics and Empirical Economics (ICEEE), Rimini, January 2007.
- (13) “The integration order of vector autoregressive processes”, European Econometric Society Meeting (ESEM), Vienna, August 2006.
- (14) “A general representation theorem for integrated vector autoregressive processes”, Summer Econometric Workshop, Århus, August 2006.
- (15) “The integration order of vector autoregressive processes”, Cointegrated VAR model: methods and applications, Copenhagen, June 2006.
- (16) “A priori inequality restrictions and bound analysis in VAR models”, Italian Congress of Econometrics and Empirical Economics (ICEEE), Venezia, January 2005.
- (17) “————”, Riunione Annuale della Società Italiana degli Economisti (SIE), Bologna, October 2004.
- (18) “————”, Econometric Methods for the Modelling of Nonstationary Data, Policy Analysis and Fhourscasting (EMM) Annual Conference, Alghero, September 2004.
- (19) “————”, Econometric Study Group (ESG) Annual Conference, Bristol, July 2004.
- (20) “A non causal identification scheme for vector autoregressions”, Statistical Modelling of Discrete Structures in Economics: Methods and Applications, Munich, June 2003.
- (21) “————”, Spring Meeting of Young Economists (SMYE), Leuven, April 2003.
- (22) “————”, Computing in Economics and Finance (CEF), Aix-en-Provence, June 2002.
- (23) “Monetary policy: empirical issues”, Workshop on Monetary Policy Theory, Catholic University of Milano, December 2001.
- (24) “A characterization of VAR with common cyclical features”, EIEF, Rome, November 2009.
- (25) “————”, Joint Research Centre, Ispra , October 2008.
- (26) “————”, Università di Padova, September 2008.
- (27) “————”, University of Copenhagen, September 2008.
- (28) “Taking a DSGE model to the data meaningfully”, University of Insubria, October 2007.
- (29) “A representation theory for polynomial cofractionality in vector autoregressive models”, University of Maastricht, January 2007.
- (30) “————”, Ente Luigi Einaudi, Rome, December 2006.
- (31) “The integration order of vector autoregressive processes”, Universitat Jaume I, Castellon de la Plana, October 2006.
- (32) “————”, Università Cattolica di Milano, May 2006.
- (33) “————”, University of Århus, May 2006.
- (34) “————”, University of Verona, April 2006.
- (35) “————”, University of Insubria, Varese, March 2006.

- (36) “————”, Department of Applied Mathematics and Statistics, University of Copenhagen, March 2006.
- (37) “A priori inequality restrictions and bound analysis in VAR models”, University of Urbino, April 2005.
- (38) “————”, University of Brescia, April 2005.
- (39) “————”, University of Lecce, April 2005.
- (40) “————”, Universitat Jaume I, Castellon de la Plana, October 2004.
- (41) “————”, University of Pisa, June 2004.
- (42) “————”, Centre for Applied Microeconometrics (CAM) seminar, University of Copenhagen, June 2004.

Teaching

March 2011: Econometrics (9 ECTS), University of Rome “La Sapienza”, Topics in VAR Modeling, EIEF, Econometrics II, LUISS.

March 2010: Econometrics (9 ECTS), University of Rome “La Sapienza”, Topics in VAR Modeling, EIEF.

October 2009: Laboratorio di Statistica Aziendale (6 ECTS) and Econometrics I (Ph.D., 20 hours), University of Rome “La Sapienza”.

October 2008: Econometrics I (Ph.D., 18 hours), University of Rome “La Sapienza”.

June 2008: Cointegration (Ph.D., 12 ore), CIDE Summer School in Econometrics (Bertinoro).

December 2007 Advanced Financial Econometrics (Master, 14 hours) with Paolo Paruolo, University of Insubria.

December 2007: Econometrics I (Ph.D., 28 hours), University of Rome “La Sapienza”.

May 2007: Advanced Econometrics: Cointegration (Master, 16 hours) with Anders Rahbek, University of Copenhagen.

February 2007: Econometrics I (BA, 35 hours), University of Copenhagen.

December 2006: Econometrics I (Ph.D., 28 hours), University of Rome “La Sapienza”.

July 2006: Teaching Assistant (40 hours) at MATLAB Summer School (Prof. Ulrich Woiteck), University of Lecce.

April 2006: Cointegration (Ph.D., 15 hours), University of Lecce.

July 2005: Teaching Assistant (40 hours) at MATLAB Summer School (Prof. Ulrich Woiteck), University of Lecce.

May 2005: Cointegration (Ph.D., 8 hours), University of Rome “La Sapienza”.

April 2005: Cointegration (Ph.D., 8 hours), University of Lecce.

October, December 2004: Econometrics I (Ph.D., 48 hours), University of Rome “La Sapienza”.

October, December 2003: Econometrics I (Ph.D., 48 hours), University of Rome “La Sapienza”.

December 2002: Pre-course of Matematiche (Ph.D., 6 hours) for Microeconomics III (Prof. Gaetano Bloise), University of Rome “La Sapienza”.

October, December 2002: Teaching Assistant (Ph.D., 20 hours) of Microeconomics I (Prof. Luigi Ventura), University of Rome “La Sapienza”.

February, April 2002: Teaching Assistant (Master, 12 hours) of Macroeconomics (Prof. Mauro Gallegati), ICSIM.

March 2002: Teaching Assistant (Ph.D., 4 hours) of Macroeconomics (Prof. Claudio Sardoni), University of Rome “La Sapienza”.

October, December 2001: Teaching Assistant (Ph.D., 20 hours) of Microeconomics I (Prof. Luigi Ventura), University of Rome “La Sapienza”.

References

Søren Johansen, University of Copenhagen.

Paolo Paruolo, Università dell’Insubria.

Marco Lippi, Università di Roma “La Sapienza”.