
Academic CV

Francesca Grassetti

updated to May 2019

PERSONAL DATA

Name: *Francesca Grassetti*

Birth: *Italy, 23/04/1985*

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ACADEMIC POSITIONS

Current positions:

- From 01/09/2017: **PROFESSORE A CONTRATTO** [Adjunt Professor], SSD SECS-S/06 - Mathematical methods for economics, finance and actuarial sciences - Department of Economics and Law, University of Macerata, Italy.
- From 01/09/2015: **ONLINE TUTOR**, General Mathematics, Financial Mathematics, Statistics, Computer Science - Department of Economics and Law, University of Macerata, Italy.
- From 2015: **FOUNDER**, AdvisEU Studio Project - Support and Training Unit Developing Input- Output, **spin off** University of Macerata.

EDUCATION

- ongoing, **BACHELOR DEGREE**, "Matematica e Applicazioni" [Mathematics and Applications], Camerino University, Italy.
- 17/04/2018, **DOCTOR OF PHILOSOPHY**, "Quantitative Methods for Economic Policy", topic "Nonlinear Dynamics" at University of Macerata, Italy. Dissertation: Nonlinear dynamics and economic growth. The influence of elasticity of substitution between input factors and differential savings propensities. Supervisor: Prof.ssa Cristiana Mammana. Grade: **Excellent**.
- 11/07/2014, **MASTER DEGREE**, "Economia e Management" [Economics and Management], Marche Polytechnic University, Italy. Grade: **110/110 cum laude**.
- 22/02/2013, **BACHELOR DEGREE**, "Economia e Commercio" [Economics and Business], Marche Polytechnic University, Italy
- 3/07/2009 , **MASTER DEGREE**, "Comunicazione Multimediale" [Multimedia Communication], University of Perugia, Italy. Grade: **110/110 cum laude**.

- 12 novembre 2007 , **BACHELOR DEGREE** "Comunicazione di Massa" [Mass Communication], University of Perugia, Italy.

VISITING POSITIONS

- AY 2017/2018: Visiting Researcher, Department of Economics, University of Kaiserslautern, Kaiserslautern, DE. Ref: Prof. Jan Wenzelburger. Approximately 1 month, not consecutive.
- AY 2016/2017: Visiting Phd Student, Bielefeld Graduate School of Economics and Management, Bielefeld, DE. Ref: Prof. Volker Böhm. Three months, consecutive.

AFFILIATIONS

- **SAET** (Society for the Advancement of Economic Theory) from 2019
- **ISDE** (International Society of Difference Equations) from 2018
- **AMASES** (Associazione per la Matematica Applicata alle Scienze Economiche e Sociali) [Italian Association for Mathematics Applied to Economic and Social Sciences] from 2015
- **ODG** (Ordine dei Giornalisti, Journalism Society) from 2009

AWARDS

- 2016: CMSIM International Participation Grants for CHAOS 2016 Conference.
2015: Research Scholarship (three years). Full funding for PhD. University of Macerata.

FUNDED PROJECTS

2018:

- Exhibition "Chaos Esthetique" within the action European Research Night (European Commission - Marie Skłodowska-Curie Actions), with Prof. Cristiana Mammana and Prof. Elisabetta Michetti.
- Scientific meeting "Degustazione finanziaria" [finance taste] within the action European Research Night (European Commission - Marie Skłodowska-Curie Actions), with Prof. Cristiana Mammana and Prof. Elisabetta Michetti.

CONFERENCES ORGANISATION

- From 25th to 27th October 2018: **A.M.A.S.E.S. session** at 59th ANNUAL MEETING of SOCIETÀ DEGLI ECONOMISTI ITALIANI [Italian Society of Economists], Bologna, Italy.
- From 07th to 09th September 2017: webmaster for **NED 2017, 10th INTERNATIONAL CONFERENCE ON NONLINEAR ECONOMIC DYNAMICS**, Pisa, Italy.

TEACHING ACTIVITIES

- AY 2018-2019:

Bachelor Degree "Economia: banche, aziende e mercati" [Economics: banks, companies and markets], Department of Economics and Law, University of Macerata:

- (13) MATEMATICA GENERALE (corso duplicato) [General Mathematics (doubled course)]- 40 hours
- (12) LABORATORIO DI MATEMATICA I [Mathematics Laboratory I]- 20 hours
- (11) LABORATORIO DI MATEMATICA II [Mathematics Laboratory II] - 20 hours
- (10) CORSO DI SOSTEGNO DI MATEMATICA GENERALE [Auxiliary Course for General Mathematics]- 20 hours
- (9) CORSO DI AZZERAMENTO DI MATEMATICA GENERALE [Preliminary Course for General Mathematics] - 20 hours

- May 2019:

Phd Program "Quantitative Methods for Economic Policy", Department of Economics and Law, University of Macerata:

- (8) PROGRAMMING FOR NONLINEAR DYNAMICS IN ECONOMICS (eng.) - 4 hours

- December 2018:

Phd Program "Quantitative Methods for Economic Policy", Department of Economics and Law, University of Macerata:

- (7) INTRODUCTION TO MATLAB (eng.) - 10 hours

- AY 2017-2018:

Bachelor Degree "Economia: banche, aziende e mercati" [Economics: banks, companies and markets], Department of Economics and Law, University of Macerata:

- (6) MATEMATICA GENERALE (corso duplicato) [General Mathematics (doubled course)]- 20 hours
- (5) LABORATORIO DI MATEMATICA I [Mathematics Laboratory I]- 20 hours
- (4) LABORATORIO DI MATEMATICA II [Mathematics Laboratory II] - 20 hours

- January 2018:

Phd Program "Quantitative Methods for Economic Policy", Department of Economics and Law, University of Macerata:

- (3) MATLAB: INSTRUMENTS, PROGRAMMING AND ECONOMIC APPLICATIONS (eng) - 10 hours

- From September to October 2018:

Phd Program "Quantitative Methods for Economic Policy", Department of Economics and Law, University of Macerata:

- (2) MATLAB: STRUMENTI, PROGRAMMAZIONE E APPLICAZIONI ECONOMICHE [Matlab: instruments, programming and economic applications] - 10 hours

- September 2017:

Preliminary Course, Department of Economics and Law, University of Macerata:

- (1) CORSO DI AZZERAMENTO - MATEMATICA GENERALE [General Mathematics - Preliminary Course] - 20 hours.

LIST OF PUBLICATIONS

10) F. GRASSETTI, C. MAMMANA, E. MICHETTI (2019). On the interaction between real economy and financial market. **MPRA PAPER**, 91975, University Library of Munich.

9) F. GRASSETTI, C. MAMMANA, E. MICHETTI (2019). Capital, labour and economic growth. The influence on fluctuations. **CRESCITA ECONOMICA, TUTELA DEI DIRITTI E RUOLO DELLE ISTITUZIONI**, Collective work. CASA EDITRICE EUM. ISBN 978-88-6056-606-5.

- 8) F. GRASSETTI (2019). On the influence of production technologies and savings propensities on economic growth. Findings considering a Solow's type growth model. **FRONTIERS - APPLIED MATHEMATICS AND STATISTICS**. 28/01/2019. DOI: 10.3389/fams.2019.00001
- 7) F. GRASSETTI, C. MAMMANA, E. MICHETTI (2018). Poverty trap, boom and bust periods and growth. A non-linear model for non-developed and developing countries. **DECISIONS IN ECONOMIC AND FINANCE** vol. 41, p. 1-18, DOI: 10.1007/s10203-018-0211-6
- 6) F. GRASSETTI, C. MAMMANA, E. MICHETTI (2018). On the effect of labour productivity on growth. Endogenous fluctuations and complex dynamics. **DISCRETE DYNAMICS IN NATURE AND SOCIETY**, vol. 2018, article ID 6831508, 9 pages, DOI :10.1155/2018/6831508
- 5) F. GRASSETTI, C. MAMMANA, E. MICHETTI (2018). Substitutability between production factors and growth. An analysis using VES production functions. **CHAOS, SOLITONS AND FRACTALS**, vol. 113, p. 53-62, DOI: 10.1016/j.chaos.2018.04.012
- 4) F. GRASSETTI, G. HUNANYAN, C. MAMMANA, E. MICHETTI (2018). A note on the influence of saving behaviors on economic growth. **METROECONOMICA**, DOI: 10.1111/meca.12210
- 3) F. GRASSETTI, G. HUNANYAN (2017). On the Economic Growth Theory with Kadiyala Production Function. **COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION**, vol. 58, p. 220-232, DOI: 10.1016/j.cnsns.2017.06.036
- 2) BISCHI G.I., F. GRASSETTI (2017). Il logos delle forme: generare immagini dal caos in P. Manganaro, F. Marcacci (eds), **LOGOS & PATHOS. EPISTEMOLOGIE CONTEMPORANEE A CONFRONTO**, Edizioni Studium, p. 61-79, ISBN: 978-88-382-4486-5
- 1) F. GRASSETTI, C. MAMMANA, E. MICHETTI (2015). Variable Elasticity of Substitution in the Diamond Model: Dynamics and Comparisons. **CHAOTIC MODELLING AND SIMULATION**, vol. 4, p. 265-275.

PAPERS UNDER REVIEW

- 1) F. GRASSETTI, C. MAMMANA, E. MICHETTI. Employment, capital and financial markets when beliefs are heterogeneous. **COMPLEXITY**.
- 2) F. GRASSETTI, C. MAMMANA, E. MICHETTI. On the interaction between real economy and financial market. **APPLIED ECONOMIC LETTERS**.
- 3) F. GRASSETTI, M. GUZOWSKA, E. MICHETTI. A dynamically consistent discretization method for some economic models. **CHAOS, SOLITONS AND FRACTALS**.

MANUSCRIPTS - ALREADY PRESENTED IN CONFERENCES

- 1) F. GRASSETTI, J. WENZELBURGER. Learning to Select Between Multiple Rational Expectations Equilibria with unobservable shocks.
- 2) F. GRASSETTI, J. WENZELBURGER. MSV solutions and exact learning.
- 3) V. BÖHM, F. GRASSETTI. The dynamics of Cournot duopoly in a monetary economy with overlapping generations of consumers.

- 4) M. GUZOWSKA, E. MICHETTI, F. GRASSETTI. A dynamically consistent discretization method for some economic models.

REFEREE ACTIVITY

Journal of Bifurcation and Chaos

INVITED SEMINARS

- 8th June 2018: *Dynamics of economic growth. Poverty traps and fluctuations at different development levels* (F. Grassetti, C. Mammana e E. Michetti), Accademia dei Lincei, Marche Polytechnic University, Ancona, Italy.
- 4th May 2018: *Poverty trap, boom and bust periods and growth*, Department of Economics, University of Kaiserslautern, Kaiserslautern, Germany.

CONFERENCES

- From 1st to 6th July 2019:
 - (1) *Learning to Select Between Multiple Rational Expectations Equilibria with unobservable shocks* (F. Grassetti, J. Wenzelburger)(provisional title),
 - (2) *MSV solutions and exact learning* (F. Grassetti, J. Wenzelburger)(provisional title) (Speaker), SAET 2018, 19th ANNUAL SAET CONFERENCE [Society for the Advancement of Economic Theory], Ischia, Italy.
- From 27th to 30th May 2019: *On the relation between employment, capital and financial markets when beliefs are heterogeneous* (F. Grassetti, C. Mammana e E. Michetti), 12th PODE (PROGRESS ON DIFFERENCE EQUATIONS) INTERNATIONAL CONFERENCE, Bragança, Portugal. (Speaker)
- From 13th to 15th September 2018: *Influence of heterogeneous beliefs in a market with K+1 financial assets* (F. Grassetti, C. Mammana e E. Michetti), XLII CONVEGNO A.M.A.S.E.S. [Italian Association for Mathematics Applied to Economic and Social Sciences Conference], Napoli, Italy. (Speaker)
- From 6th to 8th September 2018:
 - (1) *Market destabilization in a model with K+1 financial assets* (F. Grassetti, C. Mammana e E. Michetti) (Speaker).
 - (2) *A dynamically consistent discretization method for some economic models* (M. Guzowska, E. Michetti e F. Grassetti), MDEF 2018, 10th WORKSHOP DYNAMIC MODELS IN ECONOMICS AND FINANCE, Urbino, Italy.
- From 5th to 6th July 2018: *Learning to Select Between Multiple Rational Expectations Equilibria* (J. Wenzelburger, F. Grassetti), CGBCR - 9th CONFERENCE, GROWTH AND BUSINESS CYCLES IN THEORY AND PRACTICE, University of Manchester, Manchester, United Kingdom.
- From 21st to 25th May 2018: *A model on labour productivity and growth. Local and global dynamics* (F. Grassetti, C. Mammana e E. Michetti), ICDEA 2018 – 24th INTERNATIONAL CONFERENCE ON DIFFERENCE EQUATIONS AND APPLICATIONS, Dresden, Germany. (Invited)

- From 14th to 16th September 2017: *Complex basins and multistability in a discontinuous growth model* (F. Grassetti, C. Mammana e E. Michetti), Special session: Dynamic Models in Economics and Finance, XLI CONVEGNO A.M.A.S.E.S. [Italian Association for Mathematics Applied to Economic and Social Sciences Conference], Cagliari, Italy. (Speaker)

- From 7th to 9th September 2017:
 - (1) *On the boundedness of growth* (F. Grassetti, G. Hunanyan, C. Mammana e E. Michetti) (Speaker),
 - (2) *The dynamics of Cournot duopoly in a monetary economy with overlapping generations of consumers* (F. Grassetti e V. Bhöm) (Speaker)10th NED (NONLINEAR ECONOMIC DYNAMICS) CONFERENCE – I CICSE (CENTRO INTERUNIVERSITARIO PER LO STUDIO SULLA CRESCITA E LO SVILUPPO ECONOMICO [Inter-universities center for the Studies on Growth and Economic Development]) WORKSHOP, Pisa, Italy.

- From 29th to 31st May 2017: *Qualitative dynamics of Solow-Swan growth model* (F. Grassetti, C. Mammana e E. Michetti), 11th PODE (PROGRESS ON DIFFERENCE EQUATIONS) INTERNATIONAL CONFERENCE, Urbino, Italy. (Speaker)

- From 5th to 6th December 2016: *Relation between Variable Elasticity of Substitution between Production Factors and Growth* (F. Grassetti, C. Mammana e E. Michetti), 11th BIGSEM DOCTORAL WORKSHOP ON ECONOMIC THEORY, Bielefeld, Germany. (Speaker)

- From 15th to 17th September 2016: *Complex Dynamics in a neoclassical growth model with differential savings and Shifted Cobb-Douglas production function* (F. Grassetti, C. Mammana e E. Michetti), XL CONVEGNO A.M.A.S.E.S. [Italian Association for Mathematics Applied to Economic and Social Sciences Conference], Catania, Italy. (Speaker)

- From 23rd to 25th June 2016: *Elasticity of substitution between factors and growth: a nonlinear relationship* (F. Grassetti, C. Mammana e E. Michetti), MDEF 2016, 9th WORKSHOP DYNAMIC MODELS IN ECONOMICS AND FINANCE, Urbino, Italy. (Speaker)

- From 23rd to 26th May 2016: *A Diamond growth model with VES production function. The role of the elasticity of substitution* (F. Grassetti, C. Mammana e E. Michetti), CHAOS2016, 9th CHAOTIC MODELING AND SIMULATION INTERNATIONAL CONFERENCE, London, United Kingdom. (Speaker)

- From 26th to 29th May 2015: *Variable Elasticity of Substitution in the Diamond Model: Dynamics and Comparisons* (F. Grassetti, C. Mammana e E. Michetti), CHAOS2015, 8th CHAOTIC MODELING AND SIMULATION INTERNATIONAL CONFERENCE, Paris, France. (Speaker)

ATTENDEND COURSES

2019

- ACTUARIAL SCIENCE COURSE (126 hours), CISA [Interacademy center for Actuarial Sciences and Risk Management], University of Firenze, Italy.

2017

- SUMMER SCHOOL - DYNAMIC MODELS IN ECONOMICS AND FINANCE (40 hours), Verona University and Urbino University, Alba di Canazei, Italy;

2016

- CONTINUOUS TIME VERSUS DISCRETE TIME MODELS IN ECONOMIC THEORY (12 hours), University of Macerata, Italy;
- CONTINUOUS TIME DYNAMICAL SYSTEM (12 hours), University of Macerata, Italy;
- ENGLISH FOR ACADEMIC PURPOSES (21 hours), University of Macerata, Italy;
- DISCRETE TIME DYNAMICAL MODELS AND APPLICATIONS (12 hours), University of Macerata, Italy;

2015

- HORIZON 2020 - COME COSTRUIRE UNA PROPOSTA DI SUCCESSO [Horizon 2020: how to built a successful proposal] (16 hours), University of Macerata and EU CORE (European Cooperation in Research and Cooperation), Macerata, Italy;
- EUROPE IN A CHANGING WORLD: INCLUSIVE, INNOVATIVE AND REFLECTIVE SOCIETIES (7 hours), University of Macerata and APRE (Agenzia per la Promozione della Ricerca Europea) [Agency for Promotion of European Research], Macerata, Italy;

2014

- CONTINUOUS TIME DYNAMICAL MODELS AND APPLICATIONS (12 hours), University of Macerata, Italy;
- LABORATORIO DI MATEMATICA 2 [Mathematics Laboratory 2] (20 hours), University of Macerata, Macerata, Italy;

2000

- FULL-TIME GENERAL ENGLISH COURSE (1 month), Severnvale Academy, Shrewsbury, United Kingdom

Given in accordance with art. 46 e 47 of D.P.R. 445/2000, Italian law.

Francesca Grassetti