

# Marco Modica

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Via Corti, 12

20133 - Milan, Italy

## CURRENT POSITION

*December 2014 - current*

Postdoctoral Research Fellow

*CNR - IRCrES, Research Institute on Sustainable Economic Growth*

## EDUCATION

*March 2010 - July 2013*

Ph.D in Economics, Market, and Institutions

*I.M.T - Institute for Advanced Studies, Lucca*

*June 2010 - July 2010*

Advanced Courses in Econometrics

*CIDe - Centro Interuniversitario di Econometria, Bertinoro (IT)*

*April 2009*

Spring School in Economics: Theoretical and Empirical Challenges in Economics

*SSE - Scuola Superiore di Economia, Università Cà Foscari di Venezia e Università di Padova (SDEM), Venezia (IT)*

*September 2006 - July 2009*

Master of Science (Laurea Specialistica) in *Economics and Finance*

*Università degli Studi di Palermo, Faculty of Economics, Palermo (IT)*

Magna cum laude

## VISITING RESEARCH PERIODS

*October 2015*

Visiting Research Scholar

*Newcastle University Business School, Newcastle (UK)*

*September 2012 - March 2013*

Visiting Research Student

*Center for Policy Research, Syracuse University, Syracuse, New York (US)*

invited by Professor Chihwa Kao and Eleonora Patacchini

*August 2012*

Visiting Research Student

*Department of Economics, VU University Amsterdam, Amsterdam (NL)*

invited by Professor Peter Nijkamp

## HONORS AND GRANTS

2017 Premio GSSI-AISRe "MIGLIOR PAPER PRESENTATO DA UN GIOVANE  
STUDIOSO" - IX Edizione

2016 Marie Skłodowska-Curie Actions Seal of Excellence

2015 Short Term Mobility Program of CNR

2011 3rd classified Captha Prize for outstanding undergraduate dissertation

2010 I.M.T. - Institute for Advanced Studies Lucca, Ph.D scholarship

2009 MEF scholarship (University of Naples)

2009: Magna cum laude (University of Palermo)

- PAST WORK EXPERIENCES *August 2016 - March 2016*  
 Consultant on *biodiversity conservation, protection of the marine and coastal environment and development of sustainable economy* for Istituto Tagliacarne and Italian Ministry of Environment
- December 2013 - December 2014*  
 Postdoctoral Research Fellow  
 CNR - CERIS, Institute for Economic Research on Firms and Growth
- PH.D THESIS Essays in Regional and Complex Urban Economics
- JOURNAL ARTICLES
- [1] Does the construction of biogas plants affect local property values? 2017, *Economics Letters*, 159: 169-172, DOI: 10.1016/j.econlet.2017.07.030
- [2] Socio-economic exposure to natural disasters, (with Giovanni Marin), 2017, *Journal of Environmental Impact Assessment Review*, 64: 57-66, DOI: 10.1016/j.eiar.2017.03.002
- [3] G Gardner, T Prugh and M Renner, Can a city be SUSTAINABLE? State of the World, 2017, *Environment and Planning B: Planning and Design*, 44(3): 588-589, DOI:10.1177/0265813516677614
- [4] Vulnerability, Resilience, Hazard, Risk, Damage and Loss: A Socio-ecological framework for natural disasters (with Roberto Zoboli), 2016, *Web Ecology*, 16: 59-62, DOI:10.5194/we-16-59-2016
- [5] Pareto or log-normal? Best fit and truncation in the distribution of all cities (with Giorgio Fazio), 2015, *Journal of Regional Science*, 55(5): 736-756, DOI: 10.1111/jors.1
- [6] Spatial Economic Resilience: Overview and Perspectives (with Aura Reggiani), 2015, *Networks and Spatial Economics*, 15: 211-233, DOI 10.1007/s11067-014-9261-7
- [7] Mapping the environmental pressure due to economic factors. The case of Italian coastal municipalities (with Elena Pagliarino and Roberto Zoboli), 2014, *Working Paper CNR - CERIS*, No. 10/2014, ISSN 2036-8216
- BOOK CHAPTERS
- [1] Methodological Advances in Gibrat's and Zipf's Laws: A Comparative Empirical Study on the Evolution of Urban Systems (with Aura Reggiani and Peter Nijkamp), 2017, in *Socioeconomic Environmental Policies and Evaluations in Regional Science*, Shibusawa, H., Sakurai, K., Mizunoya, T., Uchida, S. (Eds.) Springer Singapore, 2017. 37-59
- [2] Ageing and Labour Market Development in Germany: Testing Gibrat's and Zipf's Law for Germany (with Aura Reggiani, Nicola DeVivo and Peter Nijkamp), 2017, in *The Pensionado-Migration Nexus in Regional Labour Markets* Springer (Eds.) (forthcoming)
- [3] Vulnerability, resilience and exposure: methodological aspects and empirical applications to shocks in the German labor market (with Aura Reggiani and Peter Nijkamp), 2017, in *Modeling Spatial and Economic Impacts of Disasters, 2nd edition*, Rose, A., Okuyama, Y. (Eds.) (*R&R*)

CONFERENCE  
PROCEEDINGS

[1] *Flood damage in Italy: towards an assessment model of reconstruction costs (with Sterlacchini, Zazzeri, Genovese, and Zoboli. EGU General Assembly Conference Abstracts 18, 13135).*

[2] *The economic assessment of seismic damage: an example for the 2012 event in Northern Italy (with Fabrizio Meroni, Vera Pessina, Thea Squarcina, Mario Locati and Roberto Zoboli), 2016, International conference on Urban Risk, 323-330 edited by CERU – European Centre on Urban Risks, Lisbon (Portugal), ISBN: 978-989-95094-1-2*

[3] *Sustainability assessment of urban areas through a multicriteria decision support system (with Anna Devitofrancesco, Matteo Ghellere, Susanna Paleari and Roberto Zoboli), 2016, Central Europe towards Sustainable Building, 499-506, Hajek, P., Tywoniak J., Lupisek, A., Sojkova, K. (Eds.), Grada Publishing, Prague, ISBN 978-80-271-0248-8.*

WORKING  
PAPERS

[1] *Housing Market Response to 2012 Northern Italy Earthquake: The role of housing quality and changing risk perception, (with Fabrizio Meroni, Vera Pessina, Thea Squarcina, Mario Locati and Roberto Zoboli), 2016, SEEDS Working Papers 04/2016 (Journal of Economic Geography, R&R)*

[2] *A damage scenario for the 2012 Northern Italy earthquake and its economic losses assessment, (with Fabrizio Meroni, Vera Pessina, Thea Squarcina, Mario Locati and Roberto Zoboli) (International Journal of Disaster Risk Science, R&R)*

[3] *The impact of the European Union integration on the city size distribution of the Member States, (Habitat International, R&R)*

[4] *An Alternative Interpretation Of Resilience: Conceptual Issues And Empirical Applications For The Italian Regions, (with Aura Reggiani) (Italian Journal of Regional Science, under review)*

[5] *The direct and indirect effects of the 2012 earthquake on the Emilia-Romagna firms: an analysis on the economic and strategic choices, with Alberto Marzucchi, Davide Antonioli and Roberto Zoboli), in preparation for Regional Studies*

[6] *Economic landslide susceptibility evaluation: the case study of Umbria, (with Zoboli, R., Salvati, P., Marchesini, I., Rossi, M., Donnin, M. and F. Guzzetti), in preparation for Land Use Policy*

[7] *School Infrastructure Spending and Educational Outcomes in Northern Italy, (with Belmonte, A., Bove, V. and G. D'Inverno)*

[8] *Related diversification and regional resilience in Europe, (with Giulio Cainelli and Roberto Ganau), in preparation for Economic Geography*

[9] *Flood damage in Italy: towards an assessment model of reconstruction costs, (with S Sterlacchini, M Zazzeri, E Genovese, M Modica, R Zoboli) EGU General Assembly Conference Abstracts 18, 13135*

[10] *A Comparative Analysis of Gibrat's and Zipf's Law on Urban Population, (with Peter Nijkamp and Aura Reggiani). Quaderni - Working Paper DSE No. 1008 ISSN 2282-6483*

[11] Pareto or log-normal? A recursive truncation approach to the distribution of (all) cities, (with Giorgio Fazio). *Working Papers 2012-10, Business School - Economics, University of Glasgow*

[12] Does the EU have a homogeneous urban structure area? The role of agglomeration and the impact of (hypothetical) shocks on the EU urban structure. Presented at the 54<sup>th</sup> Ersas Conference and available for download at the web site <http://www.sre.wu.ac.at/ersa/ersaconfs/ersa14/e140826aFinal00229.pdf>

[13] Are Gibrat and Zipf Monozygotic or Heterozygotic Twins? A Comparative Analysis of Means and Variances in Complex Urban Systems, (with Peter Nijkamp and Aura Reggiani). *Research Memorandum 2013-35 VU University, Amsterdam*

[14] Un'analisi empirica sulla consistenza dei credit ratings (in Italian only). available at <http://www.tesionline.com/intl/thesis.jsp?id=38761>

[15] Does the construction of biogas plants affect local property values?, 2016, *SEEDS Working Papers 12/2016 (Economics Letters, R&R)*

#### TECHNICAL REPORTS

[1] *Mapping Italian coastal municipalities: first results (with Elena Pagliarino and Roberto Zoboli)*, (in Italian only). Deliverable for the project RITMARE financed by MIUR (Italian Ministry of education)

[2] *Economic risk assessment of landslides: an application on the province of Perugia (with R. Zoboli, P. Salvati, I. Marchesini, M. Rossi, M. Donnini and F. Guzzetti)*, (in Italian only). Deliverable for the project 'The economic evaluation of natural disasters' financed by Fondazione Generali.

[3] *Economic evaluation of the damage suffered by the residential building as a result of Emilia Earthquake in 2012 (with F. Meroni, V. Pessina, T. Squarcina, M. Locati and R. Zoboli)* (in Italian only). Deliverable for the project 'The economic evaluation of natural disasters' financed by Fondazione Generali.

#### EXTERNAL FUNDED PROJECTS

Programma per il supporto al rafforzamento della governance in materia di riduzione del rischio ai fini di protezione civile - Rischio sismico e vulcanico. *PON Governance 2014-2020. The overall project budget amount to 4.5 million euros. PI: CNR-IGAG*

Increasing Social Awareness and ACceptance of biogas and biomethane (ISAAC). *H2020-LCE-2015, Market uptake of existing and emerging sustainable bioenergy. The overall project budget amount to 1.5 million euros. PI: Azzero Co2 S.r.l.*

I-ZEB - *Towards Smart Zero-emissions Buildings for the city's growth. The overall project budget amount to 2.475 million euros. PI: CNR - ITC*

The Italian research for sea (RITMARE). *Flagship Project funded by Italian Ministry of University and Research. The overall project budget amount to 250 million euros. PI: dr. Fabio Trincardi, Director of ISMAR.*

Technological innovations for a rational management of high density areas (INTEGRATE). *Funded by Regione Lombardia. The overall project budget amount to 20 million euros. PI: dr. Italo Meroni, CNR-ITC.*

The economic evaluation of natural disasters'. *Funded by 'Fondazione Assicurazioni Generali'.* The overall project budget amount to 1.4 million euros. *PI: prof. Roberto Zoboli, Catholic University of Milan.*

Regional dimensions of demographic change. *Funded by Institute for Employment Research (IAB) of the Federal Employment Agency (BA) and in collaboration with VU University Amsterdam and University of Bologna. PI: Prof. Uwe Blien.*

Benthic Ecosystem Fisheries Impact Studies (BENTHIS). *FP7 Project. Budget 7.78 mil. euros. PI: IMARES Wageningen UR*

## PROJECT PROPOSALS

*H2020-SCC-03-2016 New governance, business, financing models and economic impact assessment tools for sustainable cities with nature-based solutions (urban re-naturing) (deadline 08 March 2016)*

*H2020-CIRC-04-2016 New models and economic incentives for circular economy business (deadline 08 March 2016)*

*Accordo Quadro between Regione Lombardia and CNR 2016: BRAID - Bio Residues for the Advancement of Industrial Development (deadline 22 July 2016)*

*Marie Skłodowska-Curie actions Programme/Call: H2020—H2020-MSCA-IF-2015/H2020-MSCA-IF-2015 Proposal: 708818 — RREUNION I have been favourably evaluated by the Agency as eligible for Marie Skłodowska-Curie actions Programme.*

## TEACHING AND MENTORING EXPERIENCE

*2017-2018. Teaching assistant in the course Analysis and assessment of urban transformation at Politecnico of Milan (24 hours). The course is held in english*

*2016-2017. Teaching assistant in the course Analysis and assessment of urban transformation at Politecnico of Milan (24 hours). The course is held in english*

*2016-2017. Teaching assistant in the course Economics of urban transformation at Politecnico of Milan (24 hours)*

*2016-2017. Teaching assistant in the course Economic assessment of urban transformation at Politecnico of Milan (24 hours). The course is held in english*

*2016-2017. Teaching assistant in the course Economic evaluation of Urban Transformation at Politecnico of Milan (22 hours)*

*2016. Co-supervisor of Ph.D student Nicola De Vivo at IMT Institute for Advanced Studies, Lucca (Italy)*

*2015. Co-supervisor of M.Sc student Stefano Rondina at Alma mater Studiorum – University di Bologna (Italy)*

## SEMINARS, CONFERENCES AND WORKSHOPS

*57th European Regional Science Association Congress, ERSA (Groningen [The Netherlands], 29 August - 1 September 2017)*

*XXXVIII Conferenza scientifica annuale AISRe (Cagliari [Italy], 20-22 September 2017)*

*IAERE – V Annual conference (Rome [Italy], 16 – 17 February 2017)*

*IWcee16 – IV International Workshop on Computational Economics and Econometrics (Rome [Italy], 30 June – 1 July 2016)*

*The Pensionado-Migration Nexus in Regional Labour Markets, International IAB Workshop in cooperation with Regional Science Academy (Amsterdam [The Netherlands], May 2-3, 2016), invited as a speaker*

*13th European Ecological Federation (EEF) and 25th Italian Society of Ecology's (S.It.E.) joint conference (Rome [Italy], 21-25 September 2015)*

*XXXVI Conferenza scientifica annuale AISRe (Arcavacata di Rende [Italy], 14-16 September 2015)*

*55th European Regional Science Association Congress, ERSA (Lisbon [Portugal], 25-28 August 2015)*

*CISBAT International Conference 2015, Future Buildings and districts - Sustainability from nano to urban scale, (Lausanne [Switzerland], 9-11 September 2015)*

*CISBAT International Conference 2015, (Lausanne [Switzerland], 9-11 September 2015)*

*54rd European Regional Science Association Congress, ERSA (Saint Persbourg [Russian Federation], 26-29 August 2014)*

*SEEDS Seminar Series. Resilience in economic dynamics. (Milan [Italy], 11 July 2014)*

*University of Bologna. Alternative Interpretation to Regional Resilience: Evidence from Italy. (Bologna [Italy], 13 May 2014)*

*NECTAR 2014 Joint Cluster Meeting, Policy and Environment - Transport Security and Vulnerability (Beer Sheva [Israel], 30 April - 1 May 2014)*

*Workshop RITMARE (Bologna [Italy], 14-15 April 2014)*

*XXXIV Conferenza scientifica annuale AISRe (Palermo [Italy], 2-3 September 2013)*

*53rd European Regional Science Association Congress, ERSA (Palermo [Italy], 2-3 September 2013)*

*University of Bologna. Are Gibrat and Zipf Monozygotic or Heterozygotic Twins? A Comparative Analysis of Means and Variances in Complex Urban Systems. (Bologna [Italy], 07-08 May 2013)*

*59th Annual North American Meetings of the Regional Science Association International, NARSC (Ottawa [Canada], 7-10 November 2012)*

*Giornate Palermitane di Studi Economici (Ficuzza [Italy], 15-16 June 2012)*

*9th World Congress of Regional Science Association International, RSAI (Timisoara [Romania], 9-12 May 2012)*

REVIEWER ACTIVITY *Economic Geography; Science of the Total Environment; Environment and Planning B; Papers in Regional Science; The Annals of Regional Science; Physica A; Natural Hazards and Earth System Sciences; Computers, Environment and Urban Systems; Economia Politica; Miscellanea Geographica; Networks and Spatial Economics; REGION; Transportation Research Part A: Policy and Practice; Cities*

LANGUAGE SKILLS Italian: *mother tongue*  
English: *fluent*

COMPUTER SKILLS *OS: Windows, Linux, OS X*  
*Excellent knowledge of the MS Office*  
*Econometric software: Stata, Gretl, R, gnuplot*  
*Other software: Matlab, Qgis*  
*LATEX*

REFERENCES *Giorgio Fazio Newcastle University Business School, MaNA research group, Giorgio.Fazio@newcastle.ac.uk*  
*Aura Reggiani University of Bologna, Department of Economics, Faculty of Statistics, aura.reggiani@unibo.it*  
*Roberto Zoboli University Cattolica del Sacro Cuore, Department of International Economics, roberto.zoboli@unicatt.it*

*Milan, 19/08/2017*

