

# Marco Modica

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<http://www.gssi.infn.it/people/professors/lectures-social-science-gssi-cities/item/2160-modica-marco>

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Via M. Iacobucci, 2

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CURRENT POSITION	<i>November 2018 - current</i> Assistant Professor <i>GSSI, Gran Sasso Science Institute</i>
EDUCATION	<i>March 2010 - July 2013</i> Ph.D in Economics, Market, and Institutions <i>I.M.T - Institute for Advanced Studies, Lucca</i>  <i>September 2006 - July 2009</i> Master of Science (Laurea Specialistica) in <i>Economics and Finance</i> <i>Università degli Studi di Palermo, Faculty of Economics, Palermo (IT)</i> Magna cum laude
VISITING RESEARCH PERIODS	<i>October 2015</i> Visiting Research Scholar <i>Newcastle University Business School, Newcastle (UK)</i>  <i>September 2012 - March 2013</i> Visiting Research Student <i>Center for Policy Research, Syracuse University, Syracuse, New York (US)</i> invited by Professor Chihwa Kao and Eleonora Patacchini
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)
OTHER ACADEMIC QUALIFICA- TIONS	National Academic Qualification as Associate Professor in Political Economy (SECS-P/02) National Academic Qualification as Associate Professor in Applied Economics (SECS-P/06) Member of the Italian Regional Science Association Member of the Europeaa Regional Science Association

PAST WORK  
EXPERIENCES

December 2013 - December 2017  
Postdoctoral Research Fellow  
CNR - IRCrES, Research Institute on Sustainable Economic Growth

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

PH.D THESIS

Essays in Regional and Complex Urban Economics

JOURNAL  
ARTICLES

[1] Industrial Relatedness and Regional Resilience in the European Union, (with Giulio Cainelli and Roberto Ganau), *Papers in Regional Science*, DOI: 10.1111/pirs.12377, (online print) [IF: 1.657]

[2] Impianti di biogas e valori immobiliari: le potenziali esternalità negative *EyesReg*, 8(3) ISSN: 2239-3110

[3] Does the construction of biogas plants affect local property values? 2017, *Economics Letters*, 159: 169-172, DOI: 10.1016/j.econlet.2017.07.030 [IF: 0.581]

[4] 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 [IF: 3.054]

[5] The impact of the European Union integration on the city size distribution of the Member States, 2017, *Habitat International*, 70: 103-113, DOI: 10.1016/j.habitatint.2017.10.011 [IF: 3.000]

[6] Book Review. 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 [IF: 2.046]

[7] A Damage Scenario for the 2012 Northern Italy Earthquakes and Estimation of the Economic Losses to Residential Buildings, (with F. Meroni, T. Squarcina, V. Pessina, M. Locati and R. Zoboli), 2017, *International Journal of Disaster Risk Science*, 8(3): 326-341, DOI: 10.1007/s13753-017-0142-9 [IF: 1.222]

[8] Mapping the environmental pressure due to economic factors. The case of Italian coastal municipalities (with Elena Pagliarino and Roberto Zoboli), 2017, *Argomenti*, 8: 73-105, DOI: 10.14276/1971-8357.999

[9] 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 [IF: 0.793]

[10] Spatial Economic Resilience: Overview and Perspectives (with Aura Reggiani), 2015, *Networks and Spatial Economics*, 15: 211-233, DOI 10.1007/s11067-014-9261-7 [IF: 2.695]

[11] 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 [IF: 2.243]

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 *In: U. Blien, K. Kourtit, P. Nijkamp and R. Stough (eds) Modelling Aging and Migration Effects on Spatial Labor Markets*. Springer, Cham. ISBN 978-3-319-68563-2 (in press)
- [3] Vulnerability, resilience and exposure: methodological aspects (with Aura Reggiani and Peter Nijkamp), 2018, in *Modeling Spatial and Economic Impacts of Disasters, 2nd edition*, Rose, A., Okuyama, Y. (Eds.) (in press)
- [4] Periferie Resilienti (with Alessandra Faggian and Giulia Urso), 271-284, 2018 in *Riabitare l'Italia*, Donzelli Editore

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] Does related-variety affect regional resilience? New evidence from Italy, (with Giulio Cainelli and Roberto Ganau), (*The Annals of Regional Science, R&R*)
- [2] An Alternative Interpretation Of Resilience: Conceptual Issues And Empirical Applications For The Italian Regions, (with Aura Reggiani) (*Italian Journal of Regional Science, R&R*)
- [3] School Infrastructure Spending and Educational Outcomes in Northern Italy, (with Belmonte, A., Bove, V. and G. D'Inverno), *SPRU Working Paper Series* (SWPS), 2017-20: 1-23. ISSN 2057-6668. Available at: [www.sussex.ac.uk/spru/swps2017-20](http://www.sussex.ac.uk/spru/swps2017-20) (*Journal of Public Economics, under review*)
- [4] 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 (*Real Estate Economics, under review*)

- [5] City growth and core-periphery structure in Europe, (with Giorgio Fazio and Pascal Mossay), (*European Economic Review*, *under review*)
- [6] 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), *in preparation for Networks and Spatial Economics*
- [7] 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*
- [8] Building the Disaster Risk Assessment Index (with Marin, G., Paleari, S., Zoboli, R.), *in preparation for Ecological Economics*
- [9] The post-earthquake reconstruction in L'Aquila: some reflections (with Faggian, A.), *in preparation for Scienze Regionali*
- [10] Do "inner areas" matter? Conceptualization, trend and strategies for the future of these areas (with Urso, G., Faggian, A.), *in preparation for Scienze Regionali*
- [11] Resilience and sectoral composition change of Italian inner areas in the face of the Great Recession (with Urso, G., Faggian, A.), *in preparation for Sustainability*
- [12] A Holistic Alert Management Platform as a Result of Technology Transfer (with Iovino, L., D'Emidio, M.), (*Journal of Urban Technology*, *under review*)

#### 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.

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

*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.

## PROJECT PROPOSALS

H2020-SU-DRS01-2018: Human factors, and social, societal, and organisational aspects for disaster-resilient societies (deadline 24 August 2018)

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

H2020-CIRC-04-2016 New models and economic incentives for circular economy business

Accordo Quadro between Regione Lombardia and CNR 2016: BRAID - Bio Residues for the Advancement of Industrial Development

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

## TEACHING AND MENTORING EXPERIENCE

Since 2018. Member of the Teaching Committee of the PhD Program in '*Urban Studies and Regional Science*'

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)

	2017 PhD Thesis Referee of Emi Ferra at IMT Institute for Advanced Studies, Lucca (Italy)
	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)
EDITORIAL EXPERIENCE	2018. Guest editor of the Special Issue <i>Natural Disasters and the economy</i> for the Journal <i>Review of Regional Research</i>
	2018. Regional Housing and Labor Markets Section editor of the multi-volume <i>Handbook of Regional Science</i> edited by Springer
SCIENTIFIC COMMITTEE	2019. Associazione AVUS "Vittime Universitarie Sisma 6 Aprile 2009 - Prize for the best M.Sc. thesis on 'Engineering, social or economic aspects related to the management of seismic risk and the resilience of territories'
	2019. Local Organizing Committee of the XL Conference of AISRe
	Since 2018. Member of the Scientific Group of the Natural Disasters working group of the ' <i>Conference of European Regional Legislative Assemblies - CALRE</i> '
	Since 2018. Referent in the Scientific Commission of the Consortium REDI
	Since 2017. Coordinator for the Strategic Planning and Cost - Benefit Analysis of the <i>Program for supporting the governance in the reduction of seismic and volcanic risk</i> promoted by the Italian Civil Protection Department. PON Governance 2014-2020
	Since 2016. Member of the Eco <sup>2</sup> - Ecoquadro Think tank for the online newspaper <i>GreenReport</i>
SEMINARS, CONFERENCES AND WORKSHOPS	Dipartimento di Scienze Economiche e Sociali - Università Politecnica delle Marche (Ancona [Italy], 4 April, 2019). Seminar Title: 'School Infrastructure Spending and Educational Outcomes'
	Presidenza del Consiglio dei Ministri - Panel discussion 'La Mappa dei rischi dei comuni Italiani come strumento informativo e di prevenzione', invited speaker (Rome [Italy], 18 February, 2019)
	OECD Spatial Productivity Lab - Spatial productivity for regional and local development 3rd meeting, invited speaker (Trento [Italy], 7 February 2019)
	11th INU Study Day 2018 (Naples [Italy], 14 – 15 December 2018)
	XXXIX Conferenza scientifica annuale, AISRe (Bolzano [Italy], 17 - 19 September 2018)
	58th European Regional Science Association Congress, ERSa (Cork [Ireland], 28-31 August 2018)

Symposium *Resilience, Vulnerability and Complexity in Economic and Spatial Networks* - University of Bologna (Bologna [Italy], 11 June 2018), invited as a speaker

12th World Congress of Regional Science Association International, RSAI (Goa [India], 29 May - 1 June 2018)

Policy Labs - Risposta alle emergenze e ricostruzioni in Italia (organized by Action-Aid, Rome [Italy], 28 March 2018)

IAERE VI Annual conference (Turin [Italy], 15-16 February 2018)

Workshop on *Quantitative Analysis of Spatial Economic Development*, School of Economics, Management and Statistics - University of Bologna (Bologna [Italy], 30 November 2017)

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.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)

54th European Regional Science Association Congress, ERSa (Saint Petersburg [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)

Advanced Courses in Econometrics, CIeE - Centro Interuniversitario di Econometria (Bertinoro [Italy], June 2010 - July 2010)

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 [Italy], April 2009)

REVIEWER  
ACTIVITY

Economic Geography; Science of the Total Environment; Environment and Planning B; Journal of Regional Science; Papers in Regional Science; The Annals of Regional Science; Energy Policy; Land Use Policy; Journal of Planning Literature; Physica A; Natural Hazards and Earth System Sciences; International Journal of Disaster Risk Reduction; International Journal of Disaster Risk Science; International Regional Science Review; Web Ecology; Computers, Environment and Urban Systems; Forests; Habitat International; Environmental Impact Assessment Review; Survey Review; Economia Politica; Miscellanea Geographica; Networks and Spatial Economics; REGION; Transportation Research Part A: Policy and Practice; Cities; Sustainability; Review of Regional Research; Economia Politica: Journal of Analytical and Institutional Economics; Journal of Small Business Management; Structural Change and Economic Dynamics; Urban Science; Environment, Development and Sustainability; Regional Studies.

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 softwares: Matlab, Qgis  
LATEX

L'Aquila, 01/04/2019