

MARIANGELA ZENGA

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CURRICULUM VITAE

PERSONAL

Birthdate: February 24th, 1975
Citizenship: Italian
Marital Status: Married

PERSONAL SKILLS

Mother tongue: Italian
Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
German	B1	B1	B1	B1	B1

Software: SAS, SPSS, R, MATLAB, WINSTEP, MIWin.

Mariangela Zenga (female) is currently an assistant professor in Social Statistics at the University of Milano-Bicocca.

She has more ten years working on research for various studies in Social Statistics and more ten in professional teaching in these fields. She collaborates also with the Centre for Statistical Science and Operational Research in the School of Mathematics and Physics at Queen's University of Belfast and with Bicocca Applied Statistics Center at Milano Bicocca University

CURRENT POSITION

Assistant Professor in Social Statistics, University of Milano-Bicocca (since 2005)

WORK EXPERIENCE

Fellowship in *Statistics*, Queen's university of Belfast, Belfast (UK) (2004-2005).

Fellowship in *Social Statistics*, University of Milano-Bicocca (2003-2004)

Assistant research in *Statistics* to Eurisko, Italy (1999-2000).

EDUCATION

- Ph.D. in *Methodological and Applied Statistics*, University of Milano-Bicocca, 2004.
- Visiting Ph.D. Utrecht University, Social Sciences Faculty, Department of Statistics, supervisor prof J.J. Hox (January-April 2003)
- Course "*Multilevel Discrete-Time Event History analysis course*" University of Southampton 20-22 November 2002

- Course “*Multilevel modelling workshop*” University of Verona 13-14 June 2002;
- Summer school “*The duration models in the population studies,*” University of Florence, 11-15 February 2002
- Summer School of Italian Statistical Society “*New methodologies for the forecast: neural network, genetic algorithm*”, University of Venice, 4-9 September 2000
- Degree in *Economics* University of Milano-Bicocca, 2000. Grades 110/110.

FIELDS OF INTEREST

Markov model in survival analysis for healthcare outcomes
 Multilevel models
 Sampling in complex design
 Evaluation of tourism services

REFEREEING

Communications in Statistics – Theory and Methods
 Computational Management Science
 Computational Statistics
 Electronic Journal of Applied Statistical Analysis
 Journal of Applied Statistic
 Journal of Operational Research
 Statistica & Applicazioni
 Studies in Educational Evaluation
 Social Indicators research Journal
 Statistics and Probability Letters

MEMBERSHIP

SIS (Italian Statistical Society)
 Irish Statistical Society
 Aiquav

PAPERS (WITH PEER REVIEW)

- Mariani P., Marletta A., Masserini L., Zenga M. (2018) *A Latent Class Conjoint Analysis for the Administrative Clerk figure: insights from ELECTUS*, Quality and Quantity, DOI: 10.1007/s11135-018-0767-9
- Mariani P., Andrea M., Zenga, M. (2018) *Le preferenze degli imprenditori lombardi nella scelta dei neolaureati*, ed PKE
- Gordon A.S., Marshall A.H., Zenga M. (2017) *Predicting elderly patient length of stay in hospital and community care using a series of conditional Coxian phase-type distributions, further conditioned on a survival tree*, Health Care Management Science, DOI: 10.1007/s10729-017-9411-9
- Gavinelli L., Colapinto C, Zenga M, Chiodini P (2016), *Strategic choices in recessionary period: an exploration on italian smes*, Mercati & Competitività, 2016(3), pp 135-158 DOI: 10.3280/MC2016-003008
- Bongini P, Trivellato P, Zenga M., (2016) *Financial Literacy and Undergraduates. Application of Latent Regression Rasch Model*, Journal of Financial Management, Markets and Institutions, 1/2016, pp. 23-42, DOI: 10.12831/83857
- Zenga M., Marshall A.H., Crippa F., Mitchell H. (2016) *The Coxian Phase-Type Distribution as a contribution to the multilevel model of in-hospital mortality*, Communication in Statistics, Theory and Methods, 46(6),1819-1830, DOI:10.1080/03610926.2015.1038394
- Crippa, F., Mazzoleni, M., Zenga, M. (2016). Analysing the gap between formal and real path of students career progression at university. In J.R. Bozeman, T. Oliveira, & C.H. Skiadas (Eds), *Stochastic and Data Analysis Methods and Applications in Statistics and Demography*, ISAST, p. 49-60
- Marshall, A.H., Mazzoleni, M., Zenga M. (2016) *The Timing of Student Graduation: a Joint Model Approach*, In J.R. Bozeman, T. Oliveira, & C.H. Skiadas (Eds), *Stochastic and Data Analysis Methods and Applications in Statistics and Demography*, ISAST, 61-73
- Crippa F., Mazzoleni M., Zenga M. (2016) *Departures between formal and actual students' university careers: an application of non homogeneous fuzzy Markov chains*, Journal of Applied Statistics, 43(1), 16-30, DOI:10.1080/02664763.2015.1091446
- Bongini P, Trivellato P, Zenga M, (2015), *Business Students and Financial Literacy: When Will the Gender Gap Fade away?* Journal of Financial Management, Markets and Institutions, 1/2015, pp. 13-30, doi: 10.12831/80528
- Gavinelli L., Colapinto C., Zenga M., Di Gregorio A. (2015), *Different approaches to the pursuit of internationalization by Italian SMEs*, JOURNAL OF RESEARCH IN MARKETING & ENTREPRENEURSHIP, vol. 17, pp. 229-248, DOI: <http://dx.doi.org/10.1108/JRME-11-2014-0030>
- Mitchell H., Marshall A.H., Zenga M. (2015) *Using the Hidden Markov Model to capture Quality of Care in Healthcare system*, Operations research for Health care, DOI:10.1016/j.orhc.2015.06.003
- Crippa F., Marshall A.H., Merchich G., Zenga M. (2014) *Hospitalization In Geriatric Wards: Considerations On The Evaluation Of The Outcome*, Procedia Economics and Finance, 17, 248 – 255.
- Kalamatianou, A, Marshall, AH, Zenga, M (2015) *Coxian Phase-type Distributions, Survival Trees and the Gini Index Collaborating together to Provide an in-Depth Knowledge of the Distribution of the Length of University Studies*, in CH Skiadas (ed.), *Theoretical and Applied Issues in Statistics and Demography*. ISAST International Society for the Advancement of Science and Technology, p 103-120.
- Crippa, F., Mazzoleni, M., Zenga, M. (2014). Undergraduate Students' Career in Italy: a Non-Homogeneous Markov Approach with Fuzzy States. In C.H. Skiadas (a cura di), *Theoretical and Applied Issues in Statistics and Demography*. ISAST International Society for the Advancement of Science and Technology, p. 121-135
- Marshall A.H., Mitchell H., Zenga M. (2014) *Modelling the Length of Stay of Geriatric Patients in Emilia Romagna Hospitals Using Coxian Phase-Type Distributions with*

Covariates, Studies in Theoretical and Applied Statistics, Springer-Verlag Berlin Heidelberg 2014, DOI 10.1007/10104_2014__21

- Bongini P., Trivellato P., Zenga M., Di Chiacchio C., Greco S. (2014) *Gli indici di Financial Literacy* in Le Competenze economico-finanziarie degli Italiani, Bancaria Editrice, p 35-65.
- Chiodini PM, Zenga M., (2014) *Efficiency of the sample plans for symmetric and non-symmetric distributions in auditing: a comparison* in *Contribution to sampling Statistics*, ed Mecatti F., Conti PL., Ranalli MG.
- Merchich G., Zenga M. (2013) *Il costo delle cronicità nelle geriatrie italiane*, I luoghi della Cura, p. 25-29, Anno XI, N.4.
- Domma F., Giordano S., Zenga M. (2013) *The Fisher Information Matrix on a Type II Doubly Censored Sample from a Dagum Distribution*, Applied Mathematical Sciences, Vol. 7, 2013, no. 75, 3715 – 3729
- Merchich G., Zenga M., Chiacchierini (2013). *La gestione ospedaliera delle cronicità. Potenziali risorse per il territorio lombardo. Il costo delle cronicità nei reparti per acuti Lombardi*. Contribution in the book: *CRIET INCONTRA 2012: Studiosi e protagonisti a confronto per lo sviluppo delle economie territoriali*. p. 11-36, (ISBN 978-88-88381-27-5)
- A.H. Marshall, M. Zenga, S. Giordano (2013) *Modelling Students' Length of Stay at University Using Coxian Phase-Type Distributions*. International Journal of Statistics and Probability, Vol. 2, N.1 (2013), 73-89
- Merchich G., Zenga M. (2012). *Modelli di integrazione ospedale-territorio. Confronti e prospettive in ottica economica-aziendale*. Contribution in the book: *CRIET INCONTRA 2011: Studiosi e protagonisti a confronto per lo sviluppo delle economie territoriali*. p. 11-40, (ISBN 978-88-88381-21-3)
- Zenga, M.M., Pasquazzi, L., Zenga MA. (2012). First applications of a new three-parameter distribution for non-negative variables, *Statistica e Applicazioni*, 2012, Vol. X, n. 2, pp. 131-147.
- F. Domma, G. Latorre, M. Zenga (2012) *The Dagum distribution in Reliability Analysis*, *Statistica e Applicazioni*, 2012, Vol. X, n. 2, pp. 97-113.
- Zenga M.M., Radaelli, P., Zenga, MA, (2012), Decomposition of Zenga' s inequality index by sources, *Statistica e Applicazioni*, 2012, Vol. IX, n. 1, pp. 3-34
- Bongini P., Trivellato P., Zenga M. (2012) *Measuring Financial Literacy among Students: an application of Rasch Analysis*. *Electronic Journal of Applied Statistical Analysis*, Vol. 5, Issue 3, 425 – 430
- Marshall, A., Zenga, M. (2012). "Experimenting with the Coxian Phase-Type Distribution to Uncover Suitable Fits." *Methodology and Computing in Applied Probability*, 14, 71-86
- Zenga, M.M., Poliscchio M., Zenga MA. , Pasquazzi, L. (2011). "More on M.M. Zenga's new three-parameter distribution for non-negative variables", *Statistica & Applicazioni* - Vol. IX, n. 1, 2011, pp. 5-33
- Domma F., Giordano S. and Zenga M. (2011): "Maximum Likelihood Estimation in Dagum Distribution with Censored Samples", *Journal of Applied Statistics*, Vol. 38, n.12, pp. 2971-2985.
- Marshall, A., Zenga, M. (2009). "Simulating Coxian Phase-type Distributions for Patient Survival." *International Transactions in Operational Research*, 16(2), 213-226.
- Zenga, M. (2007). "Asymmetry for ordinal variables." *Statistica & Applicazioni*, V(2), 205-221.
- Maffenini W., Zenga M. (2006). "Bipolar mean and mean deviation about the bipolar mean for discrete quantitative variables." *Statistica & Applicazioni*, IV(1), 35-53.
- Maffenini, W., Zenga, M. (2004). "L'impiego della Rasch Analysis nello studio del lavoro dei neo-laureati." In E. Aureli Cutilli (a cura di), *Le strategie metodologiche per lo studio della transizione Università-Lavoro*. Padova : Cleup.
- Zenga, M. (2004). "Un modello di durata per la prima coorte di immatricolati per la facoltà di Economia dell'università Milano-Bicocca." In C. Quintano (a cura di), *Scritti di Statistica Economica* (pp. 298-326). Napoli : Liguori.

CONFERENCE (IN THE LAST 5 YEARS)

- 19-21 June 2013 “SIS 2013, Brescia”
 - Small and medium-sized firms and the current financial and economic crisis: a statistical perspective. Advances in Latent Variables, with Chiodini PM, Colapinto C, Gavinelli L
 - Never leave a job undone. Fuzzy Markov chains for Italian university, with F. Crippa, M. Mazzoleni.
 - The study of length of stay of patients in the geriatric ward using the Coxian phase type distribution: the Emilia Romagna example, with A. Marshall, H. Mitchell
- 25-28 June 2013 “ASMDA 2013, Matarò (Barcelona)”
 - Undergraduates students' career in Italy: a non homogeneous Markov approach with fuzzy states, with F. Crippa, M. Mazzoleni
 - The Coxian Phase type distribution as a contribution in the multilevel model, with A. Marshall
 - Coxian Phase-type distributions for studying students' length of graduation: Experience from an Italian and a Greek University, with A. Marshall, A. Kalamatianou
- 26-28 June 2013 “Italian Conference on Survey Methodology, Milano”
 - Efficiency of the sample plans for symmetric and non-symmetric distributions in auditing: a comparison., with P. Chiodini
- 26-29 June 2013 “EURAM, 2013 Istanbul”
 - SMEs in international contexts: an Italian perspective. EURAM 2013, with Gavinelli L, Colapinto C, Di Gregorio A
- 18- 20 September 2013 “Cladag 2013, Modena-Reggio Emilia”
 - Keeping the pace with higher education. A fuzzy states gender study. with F. Crippa, M. Mazzoleni (invited talk)
 - The financial literacy and the undergraduates, with P. Bongini, P. Trivellato (invited talk)
- 11-14 June 2014 “3rd SMTDA2014, Lisbon Portugal”
 - Modelling patient length of stay in using the discrete conditional phase-type model with decision trees, con A.H. Marshall (invited talk)
 - A Coxian phase-type model con a hidden node for patient quality of care, with H. Mitchell, A.H. Marshall;
 - Time to degree and gender differences: the case of an Italian and Greek university, with A. Kalamatianou, A.H. Marshall (invited talk)
 - Modeling students' flow in higher education. The role of the membership function, with F. Crippa, M.Mazzoleni (invited talk)
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- 20-25 July 2014 “ORAHS, 2014”
 - Using the hidden Markov model to capture quality of care in Lombardy geriatric wards, with H. Mitchell, A.H. Marshall
- 18-19 September 2014 “. EQ², Torino”
 - Evaluating hospital performance in an aging society: caring for the elderly, with F. Crippa
- 6-8 December 2014 “ERCIRM, Pisa”
 - A discrete piecewise multi-state model in survival: application to breast cancer., with J.E. Castro (invited talk)
 - Organizer of the session “Survival and reliability” with J. E. Ruiz Castro
- 30 June-4 July 2015 “ASMDA, Pireas (Greece)”
 - A Study on the Breast Cancer using a Discrete Piecewise Multi-State Model, with J.E.

- Ruiz-Castro (invited talk)
 - Joint Model of Longitudinal and Time-to-Event Data: an Application to Undergraduates' Careers with M. Mazzoleni, A.H. Marshall;
 - Using Data Mining Approaches to Predict Student Duration of Studies at University, con A. Kalamatianou, A.H. Marshall (invited talk)
 - Analysing the distance between formal and real path of students' career progression at university, with F. Crippa, M. Mazzoleni (invited talk)
- 6-8 December 2015 "ERCIRM, London"
 - A discrete piecewise multi-state model in survival: application to breast cancer., with J.E. Ruiz Castro (invited talk)
 - Organizer and Chair of the session "Advances in survival and reliability" with J.E. Ruiz Castro
- 1-4 July 2016 "SMTDA, Malta"
 - Analysing the gap between formal and real path of students career progression at university, with F.Crippa, M.Mazzoleni
 - Different pathways in the evolution of the breast cancer using a discrete homogeneous Markov model with multiple absorbing states, with J. E. Ruiz Castro (invited talk)
- 23-26 August 2016 "COMPSTAT, Oviedo"
 - The Dagum regression model in survival analysis, with F. Domma, J.E. Ruiz Castro (invited talk).
 - Organizer of the session "Advances and new methodologies in lifetime data analysis: Survival and reliability" with J.E. Ruiz Castro
- 9-11 December 2016 "ERCIM, Seville"
 - Discrete non-homogeneous Markov model in survival analysis: Application to breast cancer, with J. E. Ruiz Castro.
 - Coxian phase-type survival models with a hidden layer, with A. Mitchell, A.H. Marshall
 - Organizer and Chair of the session "New methodologies in survival and reliability" with J. E. Ruiz Castro
- 6-9 June 2017, "ASMDA, London"
 - Joint Models for Time-to-Event and Bivariate Longitudinal Data: a Likelihood Approach, with M. Mazzoleni
 - A discrete piecewise multi-state survival model: application to breast cancer, with J. E. Ruiz Castro (invited talk)
 - Random Utility Models in a stated preference approach. Some considerations on the transition from university to work, with P. Mariani, A.Marletta
- 3-4 July 2017, "SAM, Liverpool"
 - Joint models for survival and bivariate longitudinal data: a likelihood formulation, with M. Mazzoleni (Prize for the best poster)
- 24-28 July 2017, "EMS, Helsinki"
 - Joint models for time-to-event and bivariate longitudinal data" with M. Mazzoleni (invited talk)
 - Organizer of the session "Advances in survival and reliability" with J. E. Ruiz Castro
- 13-15 September 2017, "CLADAG 2017, Milan":
 - Financial literacy: socio-demographic variables versus environment, with D. Cuccinelli, P. Trivellato (poster)
 - New posetic tools for the evaluation of financial literacy, with M. Fattore

- The effect of the firm size in the selection of recruitment for new graduate, with F. Crippa, P. Mariani, A. Marletta
- Member of the local organizer committee

- 30 November-2 December 2017 “AIQUAV 2017”, Firenze
 - Residents’ Attitudes toward tourism and the Quality of Life: the experience of Visit South Sardinia, with I. Foroni, P.Modica

- 16-18 December 2017 “ERCIRM 2017, London”
 - General discrete non-homogeneous Markov models with multiple absorbing states: Application to breast cancer with J.E. Ruiz Castro (invited talk)
 - Joint models for survival and multivariate longitudinal data, with M. Mazzoleni
 - Organizer of the session “Advances in survival and reliability” with J. E. Ruiz Castro