

Synthetic Curriculum Vitae of Fulvia Mecatti

General Info

Name: Fulvia, *Surname:* Mecatti, *Gender:* F, Italian citizen

work address: Department of Sociology & Social Sciences, University of Milan-Bicocca, Via Bicocca degli Arcimboldi 8, Building U7, 20126 Milano, Italy

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Academic Positions - Current

2005- present full professor of Statistics, University of Milan-Bicocca

2013 - present Member of Program Committee PhD in Statistics, UniMiB

2016- 2019 President Didactical Committee, Dpt Sociology & Social Research

Academic Positions - Former

2000-2004 associate professor of Statistics, Faculty of Statistical Sciences, UniMiB

1995-2000 assistant professor of Statistics, Faculty of Political Sciences, State University of Milan, Italy

1992-1995 assistant professor of Statistics, Faculty of Economics, University of Brescia, Italy.

2013– 2016 designated member of the Academic Committee for monitoring didactic activities, UniMiB

2010 - 2016 Director PhD Program in Statistics – UniMiB

2007-2013 elected member of the Equal Opportunities Committee, UniMiB

1998-2004 in charge for undergraduate student orientation & recruitment, Faculty of Statistical Sciences, UniMiB

Education

1992 PhD in Methodological Statistics, University of Trento

1987 Graduated cum laude in Political Sciences, State University of Milan

07-08/1989 Summer School of Mathematics, University of Perugia

10/1994 Summer School of Nonparametric Statistics, University of Naples

09/1995 Summer School of Robust Statistics, University of Naples

Teaching Experience

1992- present teaching courses in Statistics and Probability for undergraduate students in Statistics, Sociology, Economics and Political Sciences;

2014- present Designated supervisor of PhD students in Statistics

2000-2005 teaching courses in Simulations, Mathematica and SAS software for undergraduate and graduate students

2001-2005 teaching advanced (MA) courses in Statistics, SAS and SPSS software

2000 - present teaching advanced (PhD) courses in Statistics, Sampling theory, Mathematica software and Stochastic Simulations

Research Activity

2012-present Department of Sociology and Social Research

1999-2012 Department of Statistics, UniMiB

1996-1999 Institute of Statistical & Mathematical Sciences, State University of Milan

1992-1996 Department of Quantitative Methods, University of Brescia

2012-2013 President "Sample Survey Group" of the Italian Statistical Society

2011- 2012 Vice-president elected "Sample Survey Group" of the Italian Statistical Society

2009 –present Scientific Committee of ABCD Inter-departmental Center for Gender Issues Study, UniMiB, Designated member

Elected member of

Italian Statistical Society

International Statistical Institute

American Statistical Association

International Biometric Society - Italian Region

Research work concerns four main fields:

1. Sampling Statistics and Finite Population Inference
2. Bootstrap and Stochastic Simulations
3. Gender Statistics
4. Statistical Inference Methods

In these fields author or co-author of more than 60 papers, 6 sets of lecture notes and 2 textbooks (in Italian)

International Activity & Collaborations

2014/08-09 Visiting NORC (National Opinion Research Center) at University of Chicago, Center of Excellence in Survey Research

2012-2013 Chair of the scientific committee of ITACOSM 2013 - Third Italian Conference on Survey Methodology

2012 Facilitator at WHO Global Task Force on TB Impact Measurement, Sub-group on TB prevalence surveys

2013, 2012, 2010/01-02 Visiting NORC (National Opinion Research Center) at University of Chicago, Center of Excellence in Survey Research

2010/04-09 Visiting WHO (World Health Organization), Tuberculosis Monitoring&Evaluation unit, StopTB department

2008/07 and 2007/07 Visiting Statistics Canada, Statistical Research and Innovation Division

2004/07 Visiting Statistics Canada, Household Survey Methods Division

2003/06-07 Visiting J.N.K. Rao, School of Mathematics & Statistics, Carleton University

2001/05 Visiting S.K. Thompson, Department of Statistics, PennState University

1991/01-03 Visiting B. Efron, Department of Statistics, Stanford University

Invited Seminars & Conferences (recent)

2017/07 "Sequential Adaptive sampling designs with application to population based surveys for rare diseases" Invited seminar at CUSSB (Centro Universitario Statistica per le Scienze Biomediche) Università Vita-Salute San Raffaele

Discussant for the Specialized Session "Combining big data with sample surveys" (SPE. 14 – S2G), International SIS (Società Italiana di Statistica) Conference 2017-Firenze
2017/06 "Sequential Adaptive Sampling for Rare Populations", Invited paper at ITACOSM2017 – Bologna

(co-author C.Ferraz) 2015/09 "Combining different sampling frames for agricultural statistics" Invited talk at EXPO 2015 - EU Pavilion 9 October 2015: Monitoring agriculture for market management and food security – EU Joint Research Centre and UniBO

(co-author C.Ferraz) 2015/08 "Multiple Frames Surveys: a promising tool for agricultural statistics" Invited Paper at 60th World Statistics Congress – ISI, Rio de Janeiro

2015/06 "Multiple Frame Surveys: a unified principled framework to estimation" Invited Keynote Address at ITACOSM2015-Rome

2015/03 "Dual and Multiple Frame Survey" Invited lesson at EMOS Spring School-EUROSTAT, 2015

(co-authors G.Bertarelli and A.Di Brisco) 2014/05 "Dalle statistiche di genere a una Statistica di Genere" UniMiB: La Ricerca di Genere.

Organization: Conference, Seminars and Visitors to UniMiB (recent)

2018/03 Cristiano Ferraz, Universidade Federal de Pernambuco, Brazil & FAO Consultant

2017/07 Gerda Claeskens, Katholieke Universiteit Leuven;

2015/09 Cristiano Ferraz, Universidade Federal de Pernambuco, Brazil & FAO Consultant

2011/09 Gerda Claeskens, Katholieke Universiteit Leuven

2011/06 R.Chambers, University of Wollongong (joint with R. Borgoni)

2011/06 G.Vining, Virginia Tech (joint with R. Borgoni)

2011/04 G.J.A.Fox, University of Twente, The Netherlands (joint with F.Crippa)

2005/05 M. Srivastava, University of Toronto

2004/04 R.P. Gupta, Dalhousie University, Halifax

2003/09 J.N.K. Rao, Carleton University, Ottawa

2001/09 S.K.Thompson, PennState University

2012 – 2013 Chair for ITACOSM2013- The Third ITALian CONference on Survey Methodology @ UniMiB

Peer Reviewing Service (recent)

International Statistical Review,, Journal of Official Statistics, Journal of Statistics, Metron, Scandinavian Journal of Statistics, Multivariate Analysis, Sociedade Portuguesa de Estatística, Social Indicators Research (SOI), Statistical Method&Application, Studies in Theoretical and Applied Statistics, SurveyMethodology, Test, Metrika, Statistics in Medicine

2017 External Examiner PhD thesis, Bocconi University, Milano

2013 External Examiner (Viva) PhD thesis, University of Southampton,

Professional Activities

2016-2018 scientific direction of the research "Indagine sulle Discriminazioni , Welfare aziendale e Benessere organizzativo", Equal Opportunities Committee (CUG) -UniMiB

2012 scientific direction of the survey "Indagine sui comportamenti indesiderati a sfondo sessuale (molestie) in Università" Equal Opportunities Committee (CPO) - UniMiB

2003-2013 scientific direction of the annual survey "Effects of interventions and activities of orientation & recruitment", UniMiB, Chancellor's office grant and Evaluation Committee's grant

2002 scientific direction of the research "Monitoring stage experiences in the High School of Lombardia Province (Italy) in 2001-2002", Lombardia Education Office grant

1995-present consulting for several private Italian businessse

Selected Publications, Working Papers & Conference Proceedings

Marella D., Conti P.L., Mecatti F., Andreis F. (2017) A unified principled framework for resampling based on pseudo-populations: asymptotic theory', *Submitted*

Andreis F., Conti P.L., Mecatti F. (2017) On the impact of weights approximation in resampling based on pseudo-populations, *Submitted*

Ranalli G., Mecatti F. (2017) A computationally efficient Pseudo-population Bootstrap for Sample Survey Data, *Submitted*

Mecatti F., ,Sismanidis C., Furfaro E. (2017) Sequential Adaptive strategy for population-based sampling of a rare and clustered disease, *Working Paper*

Mecatti F., Furfaro E. (2017) Multiple frame surveys: design and estimation under overlap, screening and budget constraints, *Working Paper*

Bertarelli, G., Crippa, F., & Mecatti, F. (2017). Measuring Latent Variables is space and/or time: A Gender Statistics exercise. In C. Skiadac (a cura di), Proceedings 17th Applied Stochastic Models and Data Analysis International Conference with Demographics Workshop (6-9 June 2017, London) (pp. 103-112). ISAST: International Society for the Advancement of Science and Technology.

Bertarelli, G., Crippa, F., & Mecatti, F. (2017). A latent markov model approach for measuring national gender inequality. In *Statistics and Data Science: new challenges, new generations Proceedings of the Conference of the Italian Statistical Society* (pp.157-160). Firenze : Firenze University Press.

Mecatti F. (2017) Sequential Adaptive Sampling for Rare Populations. Invited paper, ITACOSM2017 - Bologna

Furfaro E, Mecatti F (2016). New Perspectives on Sampling Rare and Clustered. In: *2016 JSM Proceedings - Survey Research Methods Section*. p. 2457-2466, ISBN: 978-0-9839375-6-2, Chicago, IL, USA, 2016

Furfaro E, Mecatti F (2016). Dealing with under-coverage bias via Dual/Multiple Frame designs: a simulation study for telephone surveys. In: *SIS2016 Proceedings*. ISBN: 9788861970618, University of Salerno, 2016

Andreis F., Conti P.L., Marella D., Mecatti F. (2016) Resampling from finite populations under complex designs: the pseudo-population approach. In: *SIS2016 Proceedings*. ISBN: 9788861970618, University of Salerno, 2016

Dean A, Zignol M, Mecatti F (2015). Guidelines for surveillance of drug resistance in tuberculosis. Geneva:World Health Organization WHO Press, ISBN: 978-92-4-154913-4

Alessandro Barbiero, Giancarlo Manzi & Fulvia Mecatti (2015) Bootstrapping probability-proportional-to-size samples via calibrated empirical population, *Journal of Statistical Computation and Simulation*, 85:3, 608-620, DOI: 10.1080/00949655.2013.833204

Mecatti, F., & Ferraz, C. (2015). Multiple Frames Surveys: a promising tool for agricultural statistics. 60th World Statistics Congress – ISI2015, Rio de Janeiro, Brazil.

Mecatti, F. (2015). Multiple Frame Surveys: a unified principled framework to estimation. Invited Keynote Address: ITACOSM 2015, Roma.

Mecatti F. (2015) *Statistica di Base. Come, Quando e Perché*. McGraw-Hill Education, (in Italian, Textbook)

Nicolussi F, Mecatti F (2014). A smooth subclass of graphical models for chain graph: towards measuring gender gaps. *QUALITY AND QUANTITY*, 15p, ISSN: 1573-7845, doi: 10.1007/s11135-014-0135-3

Mecatti F, Singh AC (2014). Estimation in Multiple Frame Surveys: A Simplified and Unified Review using the Multiplicity Approach. *JOURNAL DE LA SFDS*, vol. 155, p. 28-50, ISSN: 2102-6238

Singh AC, Mecatti F (2014). Generalized Multiplicity-Adjusted Multiple Frame Estimation via Regression. In: *Proceedings of Statistics Canada Symposium 2013*. Statistics Canada, Ottawa, ON, Canada, 2013

Mecatti F, Conti PL, Ranalli GM (a cura di) (2014). *Contributions to Sampling Statistics*. Springer,

ISBN: 978-3-319-05319-6, doi: 10.1007/978-3-319-05320-2

Floyd S, Sismanidis C, Yamada N, Daniel R, Lagahid J, Mecatti F, Vianzon R, Bloss E, Tiemersma E, Onozaki I, Glaziou P, Floyd K (2013). Analysis of tuberculosis prevalence surveys: new guidance on best-practice methods. EMERGING THEMES IN EPIDEMIOLOGY, vol. 10:10, ISSN: 1742-7622, doi: 10.1186/1742-7622-10-10

Mecatti F (2013). The Point Is. . . to Publish?. In: (a cura di): Lanzarone E;leva F, The Contribution of Young Researchers to Bayesian Statistics, Proceedings of BAYSM2013. vol. 63, p. 203-214, Springer, ISBN: 978-3-319-02084-6, doi: 10.1007/978-3-319-02084-6_39

Caligaris S., Mecatti F., Crippa F. (2013) A Narrower Perspective? From a Global to a Developed-Countries Gender Gap Index: a Gender Statistics Exercise, Invited Paper Special Issue STATISTICA

Ranalli G., Mecatti F. (2013) Comparing Recent Approaches For Bootstrapping Sample Survey Data: A First Step Towards A Unified Approach, Proceedings of the Survey Research Section, American Statistical Association, JSM12 San Diego (digital only)

F.Mecatti, F.Crippa, P.Farina (2012) A Special Gen(d)re of Statistics: Roots, Development and Methodological Prospects of Gender Statistics, International Statistical Review, 80, 3, 452–467 doi:10.1111/j.1751-5823.2012.00186.x

Mecatti F. (2012) “Bayesian Sample Size Calculator” Invited paper at workshop “Repeat prevalence surveys in Asia: design and analysis” WHO Global Task Force on TB Impact Measurement, Sub-group on TB prevalence surveys, 8 - 11 February 2012, Phnom Penh, Cambodia

F.Mecatti, S.Caligaris (2012) Quel certo genere di statistica, sis-magazine, <http://www.sis-statistica.it/magazine/spip.php?article209>

A.C. Singh, F. Mecatti (2011) Generalized Multiplicity-Adjusted Horvitz-Thompson Estimation as a Unified Approach to Multiple Frame Surveys, Journal of Official Statistics, 27, 4, 633–650.

S, Floyd, C. Sismanidis, N. Yamada, R. Daniel, Fulvia Mecatti, E. Bloss, E. Tiemersma, I.Onozaki, P.Glaziou, K. Floyd (2011) Analysis of tuberculosis prevalence surveys, accounting for clustering and incorporating imputation of missing data, International Journal of Tuberculosis and Lung Disease, “state of the art” section

F.Mecatti (2011) Tuberculosis Prevalence Surveys: a handbook, Chapter 9: Repeat Surveys (Lead author); Chapter 5:Sampling Design (contributing author), World Health Organization, Geneva http://whqlibdoc.who.int/publications/2011/9789241548168_eng.pdf, ISBN: 978 92 4 154816 8

F.Mecatti (2010) Sampling and estimation of an elusive universe: the multiplicity approach, Rivista italiana di economia, demografia e statistica, LXIV, 3, 149-162

F. Crippa, P. Farina, F. Mecatti (2011) A Special Gen(d)re of Statistics: Roots, Development and Methodological Prospects of a Gender Statistics, Short Paper in "Statistics in the 150 years from

Italian Unification", Quaderni di Dipartimento di Scienze Statistiche, Serie Ricerche 2011, n.2 Alma Mater Studiorum Università di Bologna ISSN 1973-9346

A.Barbiero, G.Manzi, F.Mecatti (2011) Calibrated π Ps bootstrap, (Short paper) ITACOSM 2011, Pisa

G.Manzi, A.Barbiero, F.Mecatti (2011) Bootstrapping under rao-sampford probability proportional to size sampling: computational aspects and application perspectives; (Short paper) ITACOSM2011, Pisa

S.Caligaris, F.Mecatti (2011) Gender gap measurement: methodological perspective and empirical research (Short Paper) Proceedings of CLADAG, Pavia

A.Barbiero, F.Mecatti (2010) Bootstrap algorithms for variance estimation in complex survey sampling, in Complex data modeling and computationally intensive statistical methods, P. Mantovan and P. Secchi Eds, Springer

A.Barbiero, F.Mecatti (2010) Bootstrap algorithms for variance estimation in complex survey sampling, Proceedings of S.Co.2009, Milan Sept 14-16, 2009
<http://www2.mate.polimi.it/ocs/viewabstract.php?id=130&cf=7>

A.Singh, F.Mecatti (2009) A Generalized Multiplicity-adjusted Horvitz-Thompson Class of Multiple Frame Estimators, Invited Paper ITACOSM09, Siena

G. Manzi, F. Mecatti (2009) "Bootstrap algorithms for risk models with auxiliary variable and complex samples" Methodology and Computing in Applied Probability, 11, 21-27
<http://dx.doi.org/10.1007/s11009-008-9072-8>

D. Haziza, F. Mecatti, J.N.K. Rao (2008) "Evaluation of some approximate variance estimators under the Rao-Sampford unequal probability sampling design" Metron, 1, 89-106

F. Mecatti (2007) "A single frame multiplicity estimator for multiple frame surveys" Survey Methodology, 33, 151-158

G. Manzi, F. Mecatti (2005) "Bootstrap methods for capture-recapture sampling" Atti del Convegno SIS "Statistica e Ambiente", Messina, 39-42

F. Mecatti (2005) "Single frame estimation in multiple frame surveys" Proceedings of the Statistics Canada Symposium [CD-ROM] Ottawa, ON, session 6

F.Mecatti (2004) "Center Sampling: a strategy for surveying difficult-to-sample populations" Proceedings of the Statistics Canada Methodology Symposium [CD-ROM], Gatineaux, Quebec, session 5

D. Haziza, F. Mecatti, J.N.K. Rao (2004) "Comparison of variance estimators under Rao-Sampford method: a simulation study", Proceedings of the American Statistical Association, Section on Survey Research Methods [CD-ROM], Toronto, ON, 3638-3643
