Europass Curriculum Vitae

Personal information

First name(s) / Surname(s)	**Pier Luigi CONTI**
Address(es)	Dipartimento di Scienze Statistiche – Sapienza Università di Roma P.le Aldo Moro, 5 - 00185
Telephone(s)	Office: +39 06 49910707 Mobile: Home:
Fax(es)	+39 06 49910072
E-mail	pierluigi.conti@uniroma1.it
Nationality	Italian
Gender	M

Work experience

Dates	October 1992 - October 1998
Occupation or position held	Researcher
Main activities and responsibilities	Researcher in Statistics, with special emphasis on nonparametric statistics, sample surveys, statistical modelling and methods for applications in telecommunications.
Name and address of employer	Sapienza Università di Roma – Dipartimento di Statistica, Probabilità e Statistiche Applicate; P.le A. Moro, 5 – 00185 Roma - Italy
Type of business or sector	Academic - University
Dates	November 1998 – October 2000
Occupation or position held	Associate Professor
Main activities and responsibilities	Researcher in Statistics, with special emphasis on nonparametric statistics, sample surveys, statistical modelling and methods for applications in telecommunications. Teaching Statistics for students in Economics.
Name and address of employer	Università di Bologna – Dipartimento di Scienze Statistiche; Via delle Belle Arti, 41 – 40126 Bologna - Italy
Type of business or sector	Academic - University
Dates	Since November 2000
Occupation or position held	Full Professor of Statistics
Main activities and responsibilities	Research in Statistics, with special emphasis on nonparametric statistics, sample surveys, statistical methods and modelling for telecommunication processes, statistical methods in the presence of incomplete informaton, data integration. Teaching in undergraduate (Laurea Triennale), master-level (Laurea Magistrale) and PhD level courses.
Name and address of employer	Sapienza Università di Roma – Dipartimento di Scienze Statistiche; P.le A. Moro, 5 – 00185 Roma - Italy
Type of business or sector	Academic - University

Education and training

Dates	1989-1992
Title of qualification awarded	PhD in Methodological Statistics
Principal subjects/occupational skills covered	Nonparametric statistics, tests of independence, asymptotic theory.
Name and type of organisation providing education and training	University of Rome “La Sapienza”
Level in national or international classification	PhD
Dates	1983-1988
Title of qualification awarded	Degree in Statistical and Economic Science

For more information on Europass go to http://europass.cedefop.europa.eu
© European Union, 2004-2010 24082010

Principal subjects/occupational skills covered	Main topics of the dissertation: sample surveys, statistical inference.
Name and type of organisation providing education and training	University of Rome "La Sapienza"

Personal skills and competences

Mother tongue(s) **Italian**

Other language(s)

Self-assessment

	Understanding		Speaking		Writing
European level (*)	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
Language					

(*) Common European Framework of Reference for Languages

Social skills and competences

- Good communications skills.
- Good ability to work in research teams as well as autonomously.

Organisational skills and competences

- Teaching courses (at both intermediate and advanced level) in sampling theory and techniques, statistical inference, nonparametric statistics.
- Editor-in-Chief of the international journal of Statistics "*Metron*" from 2007 to 2012
- Supervisor of several Master Theses
- Supervisor of PhD Thesis
- Principal investigator of the National Research Projects (PRIN) "*Statistical analysis of complex problems in the presence of incomplete information: statistical methodologies and applications"* (2005-07)
- Principal investigator of the National Research Projects (PRIN) "*Dependence analysis in problems with partial information structure"* (2007-09).
- Principal investigator of the research projects (granted by Sapienza Università di Roma) "*Network tomography in the presence of long memory data" (*2009)*, "Uncertainty analysis in statistical matching"* (2011), "*Bayesian nonparametric estimation of populations diversity and size"* (2012).
- President of the Programme Committee and of the Local Organizer Committee of the international conference ITACOSM 2015 - 4th ITAlian COnference on Survey Methodology (Rome, June 24-26, 2015).

Computer skills and competences

Office, XlStat, LaTeX, Splus

Research interests

1. *Sampling finite population*

This research field is, in a sense, my first and latest research interest. Apart from the initial contributions [A1], [A3], [A6], an important part of my recent research is essentially devoted to asymptotic problems in the presence of complex sampling design. In the paper [A38] an "equivalent version" of the empirical process, in case of a complex sampling design, is introduced, and its asymptotic properties (in terms of weak convergence) are studied, under appropriate conditions on the entropy of the sampling design. The effect of the sampling design, consisting in a multiplicative term depending on the inclusion probabilities, is explicitly obtained. Such a term can be used to construct versions of widely used statistics (e.g. Kolmogorov-Smirnov statistic, Spearman rank correlation coefficient, etc.) that are suitable when data are not i.i.d., but collected according to a complex sampling design.

In the paper [A39] the above results are applied to the important problem of estimating quantiles of a finite populations. Of course, this problem is important because quantiles are basic quantities to construct poverty and deprivation measures. In this paper a new approach to resampling from finite populations is developed. Its main merits are its simplicity and asymptotic correctness.

Paper [C2] is devoted to new methods for resampling from finite populations (under a general sampling design) that are first order asymptotically correct.

For more information on Europass go to http://europass.cedefop.europa.eu
© European Union, 2004-2010 24082010

Research interests

2. *Data integration and statistical matching.*
This interest of research was (partially) generated by a collaboration with the National Institute of Statistics (ISTAT). Statistical matching, i.e. the integration of data collected in different, non-overlapping sample surveys, is not only an important theme in official statistics but is also a crucial new research framework in statistics due to the increasing availability of data coming from different sources and the consequent need of methods to merge and suitably analyze them.
In this field, my first contributions are devoted to construct new matching techniques, that are proved to be better than the ones traditionally used in official statistics, as well as to study the "error" due to matching; cfr. [A27], [A30], [A31], [B6], [B8], [B11].
The most recent part of my research in this field starts from a simple consideration: all used matching techniques are, either explicitly or implicitly, based on the (basic) assumption that data identify the adopted statistical model. However, in concrete applications this assumption is hardly ever met. In other words, in several cases the adopted statistical model is unidentifiable. As a consequence, even for very large sample sizes, there is an intrinsic uncertainty about the model. Starting from these considerations, a measure of uncertainty has been introduced, and its main properties have been studied and used in applications. An important part of my contributions consists is studying how the availability of prior information of the relationships among variates of interest affects the measure of uncertainty, as well as how such information can be used to evaluate the reliability of results produced by data integration techniques. The main results are in the papers [A35], [A37], [A40], [A41] [B13]. Paper [C1] is devoted to the matching of income and expenditure distributions in cross-sectional data.

3. *Statistical methods and models in telecommunications*
This research interest actually includes different themes, and intersects other research fields (such as queueing analysis, nonparametric methods, etc.) I developed.
My initial interest was in ATM (Asynchronous Transfer Mode), a protocol to transport a wide range of traffic, mainly voice, data, and video signals. My initial contributions consisted in developing new Call Admission Control (CAC) rules [A13], as well as in (i) developing statistical models for ATM traffic data, (ii) studying measures of performance for ATM systems (mainly cell loss probability and long delay probability), and (iii) analyzing ATM data: cfr. papers [A15], [A17], [A18], [A19], [A21], [A22], [A23]. Many of these papers were concerned with statistical analysis for queueing models, performed in terms of both classical and Bayesian approach.
More recently, my research interest in telecommunications shifted to network tomography, namely to the analysis of Wide Area Networks (WAN) when observed data are not Origin-Destination flows, but only flows along communication trunks. Virtually all models considered in the literature on network tomography are based on the assumptions that observed data are independent over time. However, both theoretical motivations and statistical analysis of data are against such an assumption, and suggest the presence of correlations slowly decaying over time (Long Range Dependence). For this reason, new models for network tomography have been developed, assuming the possible presence of Long Range Dependence. Such models have been used to obtain new estimates of the average Origin-Destination traffic. If compared to the estimated commonly used in the literature, on one hand the new estimates perform better when there is Long Range Dependence, and on the other hand their performance is essentially equivalent to that of "traditional" estimates where Long Range Dependence is absent. Results are in the papers [A33], [A36], [B12], [B14].

4. *Statistical analysis of ruin probability*
This research theme is partially related to the statistical analysis for telecommunications, because of the relationships between ruin probability and probability of long delay in ATM systems. My initial inference was in the statistical analysis of the adjustment coefficient in Sparre-Andersen risk model; cfr. [A21], [A25]. Statistical inference on the ruin probability when claims are heavy tailed (and hence the adjustment coefficient does not exist) is studied in [A32], [B6].

5. *Detection of abnormally low bids in procurement auctions*
This research subject was developed in papers [A29], [A34], that are devoted to study the probability of detecting anomalous bids for various assignments procedures, under different scenarios.

6. *Nonparametric statistics*
Nonparametric statistics is actually my main research interest, and either nonparametric or semiparametric methods are developed in a large portion of my papers.
My initial interest in nonparametric statistics was essentially devoted to construct and study nonparametric tests for association, goodness-of-fit, independence of sequences, etc.; cfr. [A2], [A5], [A7], [A9], [A11], [A12], [A14], [A20].
Other problems considered from a theoretical point of view are the Bayesian estimation of quantiles [A24] and the construction of confidence intervals for the long memory parameter based on sub-sampling [A28].

For more information on Europass go to http://europass.cedefop.europa.eu
© European Union, 2004-2010 24082010

Research interests

In almost all my subsequent papers, my main effort consists in developing new nonparametric (or semiparametric, in some cases) statistical methodologies to be used in applicative contexts such as telecommunications, risk, data integration, etc.

Main publications

[A] Articles published on peer reviewed journals

[A42] Conti P.L., Marella D., Scanu M. (2017) "How far from identifiability? A systematic overview of the statistical matching problem in a non-parametric framework". *Communications in Statistics - Theory and* Methods, **46**, 967-994. Doi: 10.1080/03610926.2015.1010005

[A41] Conti P.L., Marella D., Neri A. (2016) "Statistical matching and uncertainty analysis in combining household income and expenditure data". To appear in *Statistical Methods and Applications*.. Doi: 10.1007/s10260-016-0374-7

[A40] Conti P.L., Marella D., Scanu M. (2016) "Statistical matching analysis for complex survey data, with an application to EU-SILC and HBS datasets". *Journal of the American Statistical* Association, 111, 1715-1725. Doi: 10.1080/01621459.2015.1112803

[A39] Conti P.L., Marella D. (2014) "Inference for Quantiles of a Finite Population: Asymptotic versus Resampling Results". *Scandinavian Journal of Statistics*, **42**, pp. 545-561.

[A38] Conti P.L. (2014) "On the estimation of the distribution function of a finite population under high entropy sampling designs, with applications". *Sankhya*, **76-B**, pp. 234-259.

[A37] Conti P.L., Marella D., Scanu M. (2013) "Uncertainty analysis for statistical matching of ordered categorical variables". C*omputational Statistics and Data Analysis*, 2013, **68**, pp. 311-325.

[A36] Conti P.L., De Giovanni L., Naldi M. (2012) "Estimation of traffic matrices in the presence of long memory traffic". *Statistical Modelling*, 2012, **12**, 29-65.

[A35] Conti P.L., Marella D, Scanu M (2012) "Uncertainty analysis in statistical matching", *Journal of Official Statistics*, 2012, **28**, 69–88.

[A34] Conti P.L., De Giovanni L., Naldi M. (2012) "A rank-and-compare algorithm to detect abnormally low bids in procurement auctions". *Electronic Commerce Research and Applications*, 2012, **111**, 192–203.

[A33] Conti P.L., De Giovanni L., Naldi M. (2010) "Blind maximum likelihood estimation of traffic matrices under long-range dependent traffic". *Computer Networks*, 2010, **54**, 2626–2639.

[A32] Conti P.L., Masiello E. (2010) "Nonparametric statistical analysis of an upper bound of the ruin probability under large claims". *Extremes*, 2010, **13**, 439-461.

[A31] Marella D., Scanu M., Conti P.L. (2008). "On the matching noise of some nonparametric imputation procedures", *Statistics and Probability Letters*, **78**, 1593-1600.

[A30] Conti P.L., Marella D., Scanu M. (2008). "Evaluation of matching noise for imputation techniques based on the local linear regression estimator". *Computational Statistics and Data Analysis*, **53**, 354-365.

[A29] Conti P.L., Naldi M. (2008) "Detection of anomalous bids in procurement auctions". *Decision Support Systems*, 2008, **46**, 420–428.

[A28] Conti P.L., De Giovanni L., Taqqu M.S., Stoev S. (2008) "Confidence intervals for the long memory parameter based on wavelets and resampling". *Statistica Sinica*, 2008, **18**, 559-579.

[A27] Conti P.L., Scanu M. (2006) Matching noise: formalization of the problem and some examples.*Rivista di Statistica Ufficiale*, 2006, 43-56.

[A26] Conti P.L., Pittau M.G., Zelli R. (2006) "Metodi non parametrici nell'analisi della distribuzione del reddito: problemi empirici ed aspetti metodologici". *Rivista di Politica Economica*, **V-VI**, 195-242.

[A25] Conti P.L. (2005) "A nonparametric sequential test with power 1 for the ruin probability in some risk models". *Statistics and Probability Letters*, 2005, **72**, 333-343.

[A24] Conti P.L. (2005) "Approximated inference for the quantile function via Dirichlet processes". *Metron*, 2004, LXII, 201-222.

[A23] Conti P.L., Lijoi A., Ruggeri F. (2004) "Long-range dependence and performance in telecom networks". *Applied Stochastic Models in Business and Industry*, 2004, **20**, 305-321.

[A22] Conti P.L. (2004) "Bootstrap approximations for Bayesian analysis of Geo/G/1 discrete-time queueing models". J*ournal of Statistical Planning and Inference*, 2004, **120**, 65-84.

For more information on Europass go to http://europass.cedefop.europa.eu
© European Union, 2004-2010 24082010

[A] Articles published on peer reviewed journals

[A21] Conti P.L., Capitanio A. (2004) "A Bayesian nonparametric approach to the estimation of the adjustment coefficient, with applications to insurance and telecommunications". *Sankhya A*, 2004, **66**, 75-108.

[A20] Conti P.L., Nikitin Ya.Yu. (2002) " Rates of convergence of a class of rank tests for independence". *Journal of Mathematical Sciences*, 2002, **109**, 2141-2147.

[A19] Conti P.L. (2002) "Nonparametric statistical analysis of discrete-time queues, with applications to ATM teletraffic data". *Stochastic Models*, 2002, **18**, 497-527.

[A18] Conti P.L., De Giovanni L. (2002) "Queueing models and statistical analysis for ATM based networks". *Sankhya B*, 2002, **64**, 50-75.

[A17] Conti P.L., De Giovanni L. (2002) "A nonparametric estimate of performance in queueing models with long-range correlation, with applications to telecommunications. *Metron*, 2002, **LX**, 35-51.

[A16] Conti P.L., Giorgi G.M. (2001) "Distribution-free estimation of the Gini inequality index: the kernel method approach". *Statistica*, 2001, **61**, 5-14.

[A15] Conti P.L. (1999) "Large sample Bayesian analysis for *Geo/G/*1 discrete-time queueing models". *The Annals of Statistics*, 1999, **27**, 1785-1807.

[A14] Conti P.L., Nikitin Ya.Yu. (1999) "Asymptotic Efficiency of independence tests based on Gini's rank association coefficient, Spearman's footrule and their generalizations". *Communications in Statistics - Theory and Methods*, 1999, **28**, 453-465.

[A13] Conti P.L., Saito H., De Giovanni L (1998) "A Robust Connection Admission Control Applicable to Long Range Dependence Traffic". *IEICE Transactions on Communications – Special Issue on ATM Traffic Control and Performance Evaluation*, 1998, **E81-B**, 849-857.

[A12] Conti P.L., Scanu M. (1998) "Testing for independence in lattice distributions". *Mathematical Methods of Statistics*, 1998, **7**, 429-444.

[A11] Conti P.L. (1997) "Asymptotic test for a geometric process against a lattice distribution with monotone hazard". *Journal of the Italian Statistical Society*, 1997, **6**, 213-231.

[A10] Conti P.L., Orsingher E. (1997) "On the distribution of the position of a randomly accelerated particle". *Theory of Probability and Mathematical Statistics*, 1997, **56**, 161-168.

[A9] Conti P.L. (1997) "On goodness-of-fit tests for lattice distributions". *Theory of Probability and Mathematical Statistics*, 1997, **57**, 81-95.

[A8] Conti P.L., Orsingher E. (1997) "Limiting distributions of randomly accelerated motions". *Lietuvos Matematikos Rinkinys (Lithuanian Mathematical Journal)*, 1997, **37**, 295-308.

[A7] Cifarelli D.M., Conti P.L., Regazzini E. (1996) "On the asymptotic distribution of a general measure of monotone dependence". *The Annals of Statistics*, 1996, **24**, 1386-1399.

[A6] Conti P.L. (1995) "A note on the estimation of a proportion in sampling finite populations". *Metron*, 1995, **LII**, 35-41.

[A5] Conti P.L. (1994) "Asymptotic inference on a general measure of monotone dependence". *Journal of the Italian Statistical Society*, 1994, **3**, 213-241.

[A4] Conti P.L. (1993) "On some descriptive aspects of measures of monotone dependence". *Metron*, 1993, **LI**, 43-60.

[A3] Conti P.L., De Giovanni L. (1992) "Some remarks on an admissibility condition". *Journal of the Italian Statistical Society*, 1992, **1**, 315-323.

[A2] Conti P.L. (1991) "Oscillation measures as randomness tests". *Metron*, 1991, **XLIX**, 373-386.

[A1] Conti P.L., De Giovanni L. (1991) "Strategie campionarie per modelli di superpopolazione stratificati in presenza di una variabile ausiliaria". *Metron*, 1991, **XLIX**, 199-211.

For more information on Europass go to http://europass.cedefop.europa.eu
© European Union, 2004-2010 24082010

[B] Papers appeared in book chapters or proceedings

[B23] Andreis F., Conti P.L., Marella D., Mecatti F. (2016). "Resampling from finite populations under complex designs: the pseudopopulation approach". *Proceedings of the 48th scientific meeting of the Italian Statistical Society,* Salerno, 2016. Ed . CUEC. ISBN 9788861970618

[B22] Conti P.L., Di Iorio A.., Guandalini A. (2015). "On the estimation of the concentration curve under complex sampling designs". Proceedings of the Conference *Statistics and Demography: the Legacy of Corrado Gini*. ISBN 978 886787 4521.

[B21] Conti P.L., Marella D. (2015). "Asymptotics in Survey Sampling for High Entropy Sampling Designs" In: Morlini I.., Minerva T., Vichi M. (Eds.) *Advances in Statistical Models for Data Analysis* (pp. 45-53), 2015, Springer Verlag, Heidelberg. ISBN 978-3-319-17376-4

[B20] Conti P.L., Marella D. (2014). "Uncertainty in statistical matching for complex sample surveys". 47th Meeting of the Italian Statistical Society - Proceedings, Cagliari, 2014. Ed . CUEC. ISBN 978-88-8467-874-4 - Paper CP12 / 2059 available at the url address http://new.sis-statistica.org/wp-content/uploads/2016/09/47sis-abstracts.rar

[B19] Conti P.L., D. Marella (2013). "Asymptotics in survey sampling for high entropy sampling designs". *Cladag 2013 - 9th Meeting of the Classification and Data Analysis Group - Book of Abstracts*, pp. 118-121. ISBN 9788867871179

[B18] Conti P.L., De Giovanni L., Naldi M. (2013). "Estimation of Traffic Matrices for LRD Traffic". In: Grigoletto M., Lisi F., Petrone S. (Eds.) *Complex Models and Computational Methods in Statistics*, 2013, Springer Verlag, Heidelberg. ISBN 978-88-470-2870-8

[B17] Conti P.L., Marella D., Scanu M. (2012). "Uncertainty in statistical matching for discrete categorical variables". *Atti della XLVI Riunione Scientifica della Società Italiana di Statistica*, Roma, 2012. Ed. CLEUP; Padova. ISBN 978-88-6129-882-8. Paper available at the url address http://new.sis-statistica.org/wp-content/uploads/2013/09/RS12-Uncertainty-in-statistical-matching-for-discrete.pdf

[B15] Conti P.L., De Giovanni L., Naldi M. (2011). "Traffiic modeling and statistical analysis in network tomography". Proceedings of the *7th Conference on Statistical Computation and Complex Systems - S.Co. 2011*. ISBN 9788861297531

[B15] Conti P.L., Marella D. (2011) "Measuring uncertainty in statistical matching". Proceedings of the Conference CLADAG 2011, Pavia, 2011. ISBN 978-88-906639-01

[B14] Conti P.L., Marella D., Scanu M., (2010). "Uncertainty in statistical matching under logical constraints: a nonparametric approach". *Atti della XLV Riunione Scientifica della Società Italiana di Statistica*, Padova, 2010. Ed. CLEUP, Padova. ISBN 978-88-6129-566-7. Paper available at the url http://new.sis-statistica.org/wp-content/uploads/2013/09/RS10-Uncertainty-in-statistical-matching-under-logical-constraints-a-nonparametric-approach.pdf

[B13] Conti P.L., De Giovanni L., Naldi M. (2009) "Blind maximum-likelihood estimation of traffic matrices in long range dependent traffic".In: *Traffic Management and Traffic Engineering for the Future Internet* (Eds. R. Valadas, P. Salvador), pp. 141-154; *Lectures Notes in Computer Science* **5464**, Springer Verlag, Berlin.

[B12] Conti P.L., Marella D., Scanu M., (2007). "Hot deck and stochastic nonparametric imputation: a comparison based on matching noise". *Proceedings of th 56th Session of the International Statistical Institute*, Lisbona, 2007; *Bullettin of the International Statistical Institute*, **LXII** , pp. 4983-4986. ISBN 9789726739920

[B11] Jona Lasinio G., Orasi A., Divino F., P.L. Conti (2007). "Statistical contributions to the analysis of environmental risks along the coastline". Proceedings of the *2007 intermediate conference SIS – Risk and Prediction*, Venezia, 2007. Ed. CLEUP, Padova. ISBN 978-88-6129-093-8. Paper available at the url address http://old.sis-statistica.org/files/pdf/atti/SIS%202007%20Venezia%20intermedio_255-262.pdf

[B10] Conti P.L., Conti C. (2007) "*L'indice di status socio-culturale*". Chapter of the volume "*La scelta del necessario. Genere, territorio e scelte di vita in un campione di aspiranti all'Esercito professionale*" (Eds. Sgritta G.B., Giuliano L., Gigantino M.), 2007, Ed. F. Angeli, Milano. ISBN 9788846491732

[B9] Conti P.L. (2007) "*Il disegno di campionamento*". Chapter of the volume "*La scelta del necessario. Genere, territorio e scelte di vita in un campione di aspiranti all'Esercito professionale*" (Eds. Sgritta G.B., Giuliano L., Gigantino M.), 2007, Ed. F. Angeli, Milano. ISBN 9788846491732

[B8] Conti P.L., Marella D., Scanu M., (2006). "Nonparametric approaches to statistical matching". *Atti della XLIII Riunione Scientifica della Società Italiana di Statistica*, Torino, 2006, (Sezione comunicazioni spontanee), 659-662, CLEUP, Padova.

For more information on Europass go to http://europass.cedefop.europa.eu
© European Union, 2004-2010 24082010

[B] Papers appeared in book chapters or proceedings

[B7] Conti P.L., Scanu M., Marella D. (2006) "Nonparametric evaluation of matching noise". *COMPSTAT 2006 - Proceedings in Computational Statistics: 17th Symposium*, Roma, 2006, pp. 453-460, Physica Verlag, Heidelberg.

[B6] Conti P.L., Masiello E. (2006) "Nonparametric statistical analysis of ruin probability under conditions of "small" and "large" claims". *COMPSTAT 2006 - Proceedings in Computational Statistics: 17th Symposium*, Roma, 2006, pp. 1501-1508, Physica Verlag, Heidelberg.

[B5] Conti P.L. (2004) "Asymptotics in Nonparametric Statistics: Some Recent Developments". *Atti della XLII Riunione Scientifica della Società Italiana di Statistica*, Bari, 2004 (Sezione relazioni invitate), pp. 35-58, CLEUP, Padova.

[B4] Conti P.L., De Giovanni L. (2002) "A nonparametric estimation of the overflow probability with long-range dependent inputs". *Atti della XLI Riunione Scientifica della Società Italiana di Statistica*, Milano, 2002, (Sezione comunicazioni spontanee), 229-232, CLEUP, Padova.

[B3] Conti P.L., De Giovanni L. (1997) "On some statistical tests useful for ATM systems: theoretical and simulation results, and applications to real data". *Proceedings of 1997 International Seminar on Teletraffic and Network*, Pechino, 1997, pp. 490-493.

[B2] Conti P.L., De Giovanni L. (1994) "On a procedure to test whether the random variables of a sequence are independent and identically distributed, with applications to telephone and packet-switched networks". *Proceedings of the 14-th International Teletraffic Congress (ITC 14)*, Antibes Juan-les-Pins, 1994, pp. 831-840, Elsevier Science Publisher, Amsterdam.

[B1] Conti P.L., De Giovanni L. (1991) "On the mathematical treatment of self-organization: extension of some classical results". *Proceedings of the International Conference on Artificial Neural Networks*, Helsinki, 1991, pp. 1809-1812, Elsevier Science Publisher, Amsterdam.

[C] Papers submitted for publications

[C2] Conti P.L., Marella D., Mecatti F. (2015) "Recovering sampling distributions of statistics of finite populations via resampling: a predictive approach". *Submitted for publication.*

[D] Books and lectures notes

[D3] Conti P.L., Marella D. (2012) *Campionamento da popolazioni finite – Il disegno campionario.* Serie Unitext, Springer Verlag, Milano.
[D2] Conti P.L. (1997) "*Stima di funzioni di densità col metodo del nucleo".* Dipartimento di Statistica, Probabilità e Statistiche Applicate - Materiali didattici per il Dottorato di Ricerca in Statistica Metodologica, n. 3, 1997.
[D1] Conti P.L. (1996) "*Basi matematiche per la teoria dei processi stocastici".* Dipartimento di Statistica, Probabilità e Statistiche Applicate - Materiali didattici per il Dottorato di Ricerca in Statistica Metodologica, n.1, 1996.

[E] Other publications

[E4] Conti P.L., De Giovanni L. (2009) "*Test di omogeneità per la datazione della Sindone*". Appendice metodologica del volume: Tosatti M. "*Inchiesta sulla Sindone*", ed. Piemme, 2009, pp. 193-196. ISBN 9788856601985.
[E3] Conti P.L. (2002) "Una breve panoramica sul problema delle mancate risposte". In: *Problemi di campionamento nella ricerca sociale* (Ed. E. Aureli Cutillo), 2002, 47-70; Ed. Università "La Sapienza", Roma.
[E2] Conti P.L., De Giovanni L. (1997) "New CAC algorithms for QoS 1 SBR and DBR connections". *Deliverable* AC111-RE1011/TELFCA/N/DS/L/D07/b1, Par. 241; *European Community project JAMES*; Project number AC111-RE1011.
[E1] Conti P.L., Vitali O. (1996) "Statistica Descrittiva". In: *Enciclopedia Italiana*, V Appendice, vol. V, 225-253.

For more information on Europass go to http://europass.cedefop.europa.eu
© European Union, 2004-2010 24082010

Teaching activity

INSTITUTIONAL COURSES (LAUREE TRIENNALI, MAGISTRALI)

- *Academic Years 2011/12 – 2014/15*: "Sampling theory" (laurea magistrale) – Faculty of Information Engineering, Computer Science and Statistics (Ingegneria dell'Informazione, Informatica e Statistica), Sapienza Università di Roma.
- *Academic Years 2011/12:- 2014/15*: "Sampling techiques" (laurea triennale) - Faculty of Information Engineering, Computer Science and Statistics (Ingegneria dell'Informazione, Informatica e Statistica), Sapienza Università di Roma.
- *Academic Years 2010/11:- 2011/12*: "Multivariate statistical methods for psychology" (laurea magistrale) - Faculty of Human Sciences, Università LUMSA, Roma.
- *Academic Years 2005/06 – 2010/11*: "Sampling theory" (laurea magistrale) – Faculty of Statistical Sciences, Sapienza Università di Roma.
- *Academic Years 2005/06:- 2010/11*: "Sampling techiques" (laurea triennale) - Faculty of Statistical Sciences, Sapienza Università di Roma.
- *Academic Years 2004/05 - 2006-07*: "Data networks and service systems - Module 1: "Stochastic models and queueing systems" (laurea triennale) - Faculty of Statistical Sciences, Sapienza Università di Roma.
- *Academic Years 2000/01 - 2003/04*: "Sampling ttheory" (laurea quadriennale v.o.) - Faculty of Statistical Sciences, Sapienza Università di Roma.
- *Academic Years 1998/99 and 1999/2000* "Statistics 1" and "Statistics 2", Faculty of Economics, University of Bologna (Forlì).

Teaching activity

ADVANCED COURSES (PHD PROGRAMMES)

- *Academic Years 2006/2007 – 2009/10*: "Nonparametric methods for functional estimation", PhD Programme in "Statistical Methods for Economics and Business" ("Metodi statistici per l'economia e l'impresa"), Università Roma Tre.

Academic Years 2005/06 - 2008/09: "Nonparametric density estimation" (in English), PhD Programme in "Econometrics and Empirical Economics ", Università di Roma "Tor Vergata".

- *Academic Years 2005/06 - 2008/09*: "Nonparametric density estimation" (in English), PhD Programme in "Econometrics and Empirical Economics ", Università di Roma "Tor Vergata".

Academic Years 2004/05 - 2009/10: *"Asymptotic theory" (in English), PhD Programme in "Econometrics and Empirical Economics", Università di Roma "Tor Vergata"*

- *Academic Year 2004/05*: "Asymptotic theory", PhD Programme in "Statistical Methodology", Sapienza Università di Roma.
- *Academic Year 1999/2000* "Large deviations with applications in asymptotic theory" PhD programme in "Statistical Methodology for Scientific Research", Department of Statistical Sciences, Università di Bologna.

For more information on Europass go to http://europass.cedefop.europa.eu
© European Union, 2004-2010 24082010

Other activities

- 1995: Visiting research fellow at the University of Chicago.
- 1998: Visiting research fellow at Duke University.
- 1999-2000: Member of the "Collegio dei docenti", PhD Programme in "Statistical Methodology for Scientific Research", Università di Bologna.
- Since 2016: Head of the Ph.D. Programme in "Statistical Sciences", Sapienza Università di Roma
- 2007-2012: Editor-in-chief of the international journal of Statistics *Metron*.
- Since 2013: Member of the Advisory Edotorial Board of the international journal of Statistics *Metron.*
- 2005-2009: Associate Editor of *Journal of Statistical Theory and Practice.*
- Referee for several international journals of statistics.
- Since 2012: Reviewer of *Mathematical Reviews.*
- 2014-2015: Head of "S2G – Survey Sampling Group of the Italian Statistical Society".
- 2006 – 2008 Supervisor of a two-year post-doc programme (assegno di ricerca) on "*Methodologies for inferential and exploratory statistics*" ("*Metodologia statistica relativa alle tecniche di analisi esplorative e inferenziali"*); research fellow Dr. D. Marella.
- 2007: Winner of a EU tender for a course on "*Training in sampling for fisheries inspectors*" for EU inspectors of the European Fisheries Control Agency. The course was held at JRC, Ispra, in January 2008.
- 2011-2017: Courses on *"Elementary statistics and probability"* for security managers of railway companies, held at ASSTRA (Associazione trasporti - associazione datoriale, nazionale, delle aziende di trasporto pubblico locale in Italia)
- 2009, 2010: Courses on "*Nonparametric functional estimation*" ("*Stima non parametrica di funzioni*"), held at ISTAT (Istituto Nazionale di Statistica)
- 2011: Course on "*Advanced sampling methods*", held at Banca d'Italia.
- 2016: Course leader of the European Statistical Training Programme (ESTP) course on "*Statisticall Matching and Record Linkage*", held DevStat (Valencia)
- 2013: Member, as senior statistician, of the 1st contractor team for the Eurostat - EU tender "Quality, methodology and research – Methodological help-desk". The team is also 2nd contractor for the Eurostat - EU tender "Quality, methodology and research – Methodological support".
- 2006-2010: Member of the team (composed by P.L. Conti and P.G. Franciosa) that developed and statistically validated the pseudo-random numbers generator used by Lottomatica for "Lotto istantaneo" and "10 e lotto". A short interview to P.L. Conti and P.G. Franciosa appeared in the magazine *Wired* (July 2012, pp. 68-69).
- 2003-2004: Member, as senior statistician, of the research group on "Gender and life choices: an analysis of a sample of volunteers of the Italian Army". The research involved a sample of 6189 applicats as volunteers of the Italian Army. Results of the research are in the collective volume: "*La scelta del necessario. Genere, territorio e scelte di vita in un campione di aspiranti all'Esercito professionale*" (Eds. Sgritta G.B., Giuliano L., Gigantino M.), 2007, Ed. F. Amgeli, Milano.
- 2009: Together with L. De Giovanni, P.L. Conti made a statistical analysis of the data published in the paper "Radiocarbon Dating of the Shroud of Turin" by P.E. Damon *et al.* (*Nature*, 1989, Vol. 337, No. 6208, pp. 611-615). The results obtained by P.L. Conti and L. De Giovanni were published as "Methodological Appendix" of the book "Inchiesta sulla Sindone" by Marco Tosatti. Subsequently, in 2011 an interview to P.L. Conti appeared in the documentary **"***La notte della Sindone***"** (produced by Polifemo and RAI).

For more information on Europass go to http://europass.cedefop.europa.eu
© European Union, 2004-2010 24082010