

CURRICULUM VITAE
ROSSELLA BERNI
(updated on 14th September, 2020)

CURRENTLY

Full professor, Secs S/03 “Economic Statistics”, at the Department of Statistics Computer Science Applications “G.Parenti”- University of Florence.

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EDUCATION

1992-1995: PhD student in Applied Statistics- Statistics Department- University of Florence. PhD Thesis titled: "Metodi di Taguchi nel Controllo di Qualità off-line; Superfici di Risposta e Modelli Lineari Generalizzati" English Title: “Taguchi’s Methods in Off-Line Quality Control; Response Surface Methodology and Generalized Linear Models”. Supervisor: Prof. Luigi Biggeri.

1991: Degree in Economics and Business Administration- University of Florence. Thesis: " Hybrid Log-Linear Models and their application to social mobility flows". Marks: summa cum laude. Supervisor: Prof. Luigi Biggeri.

1986: Diploma of Statistics- University of Florence. Thesis: "The Unbalanced Factorial Design". Marks: 70/70. Supervisor: Prof. Florido Salvi.

MEMBER AND APPOINTMENT OF THE FOLLOWING:

SIS, Società Italiana di Statistica (*Italian Statistical Society*), since 1996.

ENBIS, *European Network for Business and Industrial Statistics*, since 2002.

IEEE, *Institute of Electrical and Electronics Engineers*, 2012-2018.

ASA, Associazione per la statistica Applicata (*Applied Statistics Association*), since January 2016.

TEACHING ACTIVITIES

Summary

Since 1995 two degree-level subjects (6 and 9 credits) relating to “Statistical Quality Control”; main topics: the fundamental theory of design of experiment, fractional factorial designs, Response Surface Methodology.

Currently, degree-level subjects: “Statistical quality Control” (6 credits) for two Degree Courses: “Statistics” and “Marketing, Internationalization and Quality”; “Design of Experiment” (6 credits) at a higher Master Degree level in “Statistic, Financial and Actuarial Sciences”.

Since 1999, “Design of experiment” in the PhD course in Applied Statistics (University of Florence).

More specifically:

A classification of the teaching activity is indicated below by period and teaching level: (AY stands for “Academic Year”)

- AY: from 1995-96 to 1999-2000: Assistant professor at the basic Statistics course in the Degree Course of Economics and Business- Faculty of Economics (basic Statistics course for the degree in Economics and Commerce - Faculty of Economics); teaching in the Industrial Statistics courses; teaching of Statistical Quality Control in the Degree course of Actuarial and Statistical Sciences and Economics and Statistical Sciences. Teaching of

Statistical Quality Control in the Statistical diploma course (Three Years) entitled Economics and Quality Engineering- location: Prato.

- AY: from 2000-01 to 2007-08: teaching activity in Degree Courses (Basic level- Three years) of: i) Statistics (location: Florence) and ii) Economics and Quality Engineering - EIQ (location Prato), the latter has been a Degree Course since AY 2001-02. The two teaching courses, both entitled Statistical Quality Control, differ with regard to contents and Credit Numbers (6 Credits and 9 Credits respectively) even though they have the same label (different code).
- AY: 2008-09, 2009-10, 2010-11: teaching activity in two Degree Courses: Statistics (location Florence-6 Credits) and Marketing, Internationalization and Quality-MIQ (location Prato- 12 Credits). Both teaching courses were entitled “Statistical Quality Control”.
- AY: 2011-12, 2012-13, 2013-14, 2014-15, 2015-16, 2016-17: Degree Course in Statistics: “Statistical Quality Control” (6 Credits) – Degree Course in Marketing, Internationalization and Quality-MIQ: “Statistical Quality Control” (6 Credits).

TEACHING ACTIVITY AT A SPECIALIZED LEVEL (SPECIALIZATION, PHD, MASTER)

- AY: 2001-02 and 2002-03: Teaching course in “Outsourcing and Supplier/Customer relations - Statistical methods” (36 hours, 4.5 Credits) in the 1st Level Master in Economics and Quality Engineering- University of Florence.
- AY: From AY. 1998-99 to AY 2012-13: teaching activity at the PhD Course in Applied Statistics – University of Florence; Courses of Design of Experiments and Models for Experimental Design (see below for details).
- AY: 2009-10 and 2010-11: Master Degree in Statistics: “Design of Experiments” (4 Credits) in “Sample theory and Design of Experiments” (9 Credits).
- AY: 2011-12, 2012-13, 2013-14, 2014-15, 2015-16, 2016-17(Ist semester): Master Degree in Statistical Sciences: course of “Design of Experiments” (6 Credits).
- CURRENT TEACHING (AY 2020-21):

1st semester- Teaching of “Statistics for Experiments in the Field of Technology” (6 Credits)- Master Degrees – School of Economic and Management; School of Engineering

2nd Semester- Course on “Statistical Quality Control” in the Degree Course in Statistics (location: Florence-6 Credits); “Statistical Methods for Quality Control” in the Degree Course in Business Economics, curriculum in Marketing, Internationalization and Quality-MIQ (location: Prato- 6 Credits).

PhD AND MASTER LEVEL TEACHING

- PhD in Mathematics, Statistics and Computer Science, InDAM XXXIII cycle, University of Florence: seminars and lessons on “Design of Experiments and statistical modelling: features on experimental design planning”, January-February, AY 2019-20.

- PhD in Mathematics, Statistics and Computer Science, InDAM XXXIII cycle, University of Florence: seminars and lessons on “Design of Experiments and statistical modelling: features on experimental design planning”, January-February, AY 2017-18.
- PhD in Mathematics, Statistics and Computer Science, InDAM XXXII cycle, University of Florence: seminars and lessons on “Design of Experiments”, February 2017, AY 2016-17.
- PhD in Mathematics, Statistics and Computer Science, InDAM XXXI cycle, University of Florence: seminars and lessons on “Design of Experiments”, December 2015-January 2016, AY 2015-16.
- PhD in Mathematics, Statistics and Computer Science, InDAM, XXIX cycle, University of Florence: 6 seminars on “Design of Experiments”, October 2014, AY 2013-14.
- PhD in Applied Statistics, XXVIII cycle, University of Florence: 6 seminars on “Design of Experiments”, February-March 2013, AY 2012-13.
- PhD in Applied Statistics, XXVI cycle, University of Florence: 5 seminars on “Design of Experiments”, October-November 2011, AY 2011-12.
- PhD in Applied Statistics, XXV cycle, University of Florence: 4 seminars on “Design of Experiments”, January 2011, AY 2010-11.
- PhD in Applied Statistics, XXIV cycle, University of Florence: 3 seminars on “Design of Experiments”, January 2010, AY 2009-10.
- PhD in Applied Statistics, XXIII cycle, University of Florence: “MODELS FOR EXPERIMENTAL DESIGN” Unit (2 credits), December 2009, AY 2009-10.
- PhD in Applied Statistics, XXII cycle, University of Florence: “MODELS FOR EXPERIMENTAL DESIGN” Unit (2 credits), October-November 2007.
- PhD in Applied Statistics, XXI cycle, University of Florence: “ MODELS FOR EXPERIMENTAL DESIGN” Unit (2 credits), October-November 2006.
- PhD in Applied Statistics, XX cycle, University of Florence: “ MODELS FOR EXPERIMENTAL DESIGN” Unit (2 credits), October-December 2005.
- PhD in Applied Statistics, XIX cycle, University of Florence: “Design of Experiments” Unit (duration 20 hours), January-February 2005.
- PhD in Applied Statistics, XVIII cycle, University of Florence: “Design of Experiments” Unit (duration 26 hours), January 2004.
- PhD in Applied Statistics, XVII cycle, University of Florence: “Design of Experiments” Unit (duration 23 hours), January 2004.
- PhD in Applied Statistics, XVI cycle, University of Florence: “Design of Experiments” Unit (duration 26 hours), July-September 2004.
- PhD in Applied Statistics, XV cycle, University of Florence: “Design of Experiments” Unit

(duration 33 hours), 2002.

- PhD in Applied Statistics, XIV cycle, University of Florence: course of “Design of Experiments and Response Surface Methodology, AY 1998-99.
- 1st Level Master in Economics and Quality Engineering - EIQ, Engineering Faculty, University of Florence: teaching of the "OUTSOURCING AND SUPPLIER/CUSTOMER RELATIONS - STATISTICAL METHODS" course (duration 36 hours, 4.5 credits), AY: 2001-02, 2002-03.

OTHER ACADEMIC ACTIVITIES: Institutional appointments

Academic activities- Engineering Faculty:

- Member of the Educational Coordination Commission of the 1st Level Master in Economics and Quality Engineering - EIQ – University of Florence – AY 2001-02, 2002-03.

Academic activities - Faculty of Economics (now School of Business and Management):

Appointments:

- Member of the Thesis Commission of the Faculty of Economics from march 1999 to September 2002.
- Member of the Study Plan Commission for the Degree Course in Business and Economics, AY: 1996-97, 1997-98, 1998-99.
- Official director of managing pass-over from old to new regulations within the context of the new university reform for the Degree Course in Economics and Quality Engineering - EIQ AY 2001-02
- Committee member of the Department of Statistics “G. Parenti” from November 2002 to November 2005.
- Member of the Degree Course Commission in Economics and Quality Engineering - EIQ for the participation to Regional Tenders for funding and accrediting- from 2002 to AY 2005-06.
- Member of the Degree Course Commission in Economics and Quality Engineering - EIQ from October 2001 to AY 2008-09.
- In charge of the study plans and delegate for the guidelines of the Degree Course in Economics and Quality Engineering - EIQ - from AY 2002-03 to AY 2008-09.
- Member of the “Educational offer” academic team - Faculty of Economics- from AY 2003-04 to AY 2008-09.
- Member of the Stages Committee- Degree Course in Statistics- Faculty of Economics - from November 2004 per AY: 2004-05, 2005-06, 2006-07, 2007-08.
- Member of the Stages Committee- Degree Course in Statistics - Faculty of Economics from AY 2008- 09, 2009-10, 2010-11, 2011-12, 2012-13, 2013-14, 2015-16.
- Member of the Stages Committee- Master Degree in Statistical Science- AY 2009-10- 2010-11, 2011-12, 12-13, 13-14, 15-16.
- Member of the Educational Committee- Degree Course in Marketing, Internationalization and Quality- MIQ, AY 2008-09, 2009-10, 2010-11, 2011-12.
- Member of the Executive Board - Department of Statistics, Informatics, Applications - University of Florence - from 12th February 2013 to 1st November 2016.
- Member of the Educational Committee- Degree Course in Marketing Internationalization and Quality - MIQ.

CURRENT APPOINTMENTS:

- Member of the Educational Committee - Degree Course in Statistics - since 25 September 2012 (AY 2012-13).
- Member of the Teaching Staff of the PhD in Applied Statistics- University of Florence - since September 2012.
- Member of the Teaching Staff of the PhD in Mathematics, Computer Science and Statistics, Firenze-Perugia-InDAM - University of Florence – since September 2013.
- Member of the University Quality Committee- University of Florence - since January 2016.
- Director of the Interuniversity Research Center StEering- Statistics for Engineering: design, quality and reliability, (<https://www.disia.unifi.it/p186.html>), since June 2017.
- ENBIS Vice-President (European Network for Business and Industrial Statistics: www.enbis.org) 2017-2019.
- Department Coordinator within the Competence Center ARTES 4.0 “Advanced Robotics and enabling digital Technologies & Systems” since December 2018.

SCIENTIFIC DIRECTOR IN THE FOLLOWING PROJECTS:

- Scientific Director of the Agreement between the Department of Statistics- University of Florence and Azienda Regionale del Diritto allo Studio Universitario (ARDSU) (*Regional Office for University Student Services*) on: EVALUATION OF SERVICES SUPPLIED BY ARDSU entitled OBSERVATORY FOR QUALITY, three-year project: 2005-2008; surveys on directly run canteen services; survey of the development area for student services, survey of residence service.
- Scientific Director of the Agreement between the Department of Statistics- University of Florence and the Province of Florence -OSSERVATORIO SCOLASTICO PROVINCIALE (OSP) (*Provincial Scholastic Observatory*) on “*Monitoring of the school population of the province of Florence for processing purposes of the OSP of Florence*”, AY: 2006-07.
- Scientific Director of the Agreement between the Department of Statistics- University of Florence and Linea Comune SPA- on “*Monitoring of the school population of the province of Florence for processing purposes of the Osservatorio Scolastico Provinciale (OSP) of Florence*”, AY: 2007-08.
- Scientific Director of the Agreement between the Department of Statistics- University of Florence and the Municipality of Florence - on “*Monitoring of the perceived quality of the school canteen service of the Municipality of Florence*”, two-year project: 2008 and 2009.
- Scientific Director Agreement between the Department of Statistics- University of Florence and Azienda Regionale del Diritto allo Studio Universitario (ARDSU- Tuscany), related to the evaluation of services supplied by ARDSU-Tuscany to the three areas of Florence, Pisa and Siena, entitled OBSERVATORY FOR QUALITY, 2010-11.
- Scientific Director of the Research agreement on “*Reduction of Hydrophobic effect on tubular glass vial inner surface through a design of experiment in a robust process optimization context*” between the Interuniversity Research Center StEering and Nuova OMPI s.r.l. Unipersonale, 2018.

PARTICIPATION TO THE FOLLOWING CONFERENCES AND WORKSHOPS:

- II Annual *European Network for Business and Industrial Statistics* (ENBIS) Conference-2002, Rimini, Italy.
- III Annual *European Network for Business and Industrial Statistics* (ENBIS) Conference- 2003, Barcelona, Spain.
- XIX *International Workshop on Statistical Modeling*, 2004, Florence, Italy.
- IV Annual *European Network for Business and Industrial Statistics* (ENBIS) Conference-2004, Copenhagen, Denmark.
- II *Italy-China International Conference on Economic and Social Statistics*, 2004, Florence.
- VII *Annual Workshop on Design of Industrial Experiment* (Deinde), 2005, Turin, Italy.
- VI Annual *European Network for Business and Industrial Statistics* (ENBIS) Conference-2006, Wroclaw, Poland.
- Joint ENBIS-DEINDE Conference- *Computer Experiments versus Physical Experiments*, 2007, Turin, Italy.
- ISI, 56th Session of the ISI, 2007, Lisbon, Portugal.
- Workshop “Multivariate methods and models for evaluating public services”, 24-26 May 2009, Rimini, Italy.
- EURISBIS-European Regional Meeting of the International Society for Business and Industrial Statistics, 30 May - 3 June 2009, Cagliari, Italy.
- IX Annual *European Network for Business and Industrial Statistics* (ENBIS) Conference-September 2009, Gothenburg, Sweden.
- *Statistics for complex problems: the multivariate permutation approach and related topics*-Conference in honor of Prof. Pesarin -45th S.I.S. Congress- 14-15 June 2010, Padua, Italy.
- X Annual *European Network for Business and Industrial Statistics* (ENBIS) Conference-September 2010, Antwerp, Belgium.
- ENBIS-DEINDE Spring Conference, 16-18 March 2011, Turin, Italy.
- Workshop on “Statistical Methods Applied to Microelectronics”- 13 June 2011- Catholic University-Milan, Italy
- XI Annual *European Network for Business and Industrial Statistics* (ENBIS) Conference --September 2011, Coimbra, Portugal.
- International Conference “*Methods and Models for Latent Variables*”- MMLVs, June 2012, University of Naples Federico II, Naples, Italy.
- Conference “*Il valore della Statistica per le Imprese e la Società*”, 14-15 February 2013, Università Cattolica del Sacro Cuore- Milan, Italy.
- ENBIS spring meeting 2013 – “*Measurement system and process improvement: Towards best practice and standards*”, 7-8 May 2013, National Physical Laboratory, London, England.
- *Seventh International Workshop on Simulation*, 21-25 May 2013, Dipartimento di Scienze Statistiche, Università di Bologna, Rimini, Italy.
- *7th Conference on Design of Experiment (DoE) in engine development*, 18-19 June 2013, Berlin, Germany.
- XIV Annual *European Network for Business and Industrial Statistics* (ENBIS) Conference-September 2014, Linz, Austria.
- National Conference “*Eccellenza nella qualità, controllo statistico e customer satisfaction*”, Turin, 17-19 September 2014.
- XV Annual ENBIS Conference September 2015, Praha, R. Ceca.
- XVI Annual ENBIS Conference, September 2016, Sheffield, UK.
- XVII Annual ENBIS Conference, September 2017, Naples, Italy.
- ENBIS Spring Conference, 4-6 June 2018, Firenze, Italy.
- SIS 2018: 49th Scientific Meeting, June 2018, Palermo, Italy.
- XVIII Annual ENBIS Conference September 2018, Nancy, France.
- XIX Annual ENBIS Conference September 2019, Budapest, Hungary.

Invited speaker:

- *International Conference on Economic and Social Statistics*- December 2002, Jinan University, Guangzhou, China.
- Seminar titled: *Observational Data and Optimal Experimental Design*, at Dortmund University, Statistik Department- January 2004- Dortmund, Germany.
- MoDA 9- *Advances in Model-Oriented Design and Analysis*, 14-19 June 2010, Bertinoro, Italy.
- 3rd International Conference of the ERCIM WG-Computing & Statistics- December 2010, Senate House, University of London, UK; session: Optimal experimental design; presentation title: “*T-optimality and observational data: some examples*” (author: Berni R.).
- S.I.S. Meeting- June 2011- Department of Statistical Science- University of Bologna; Invited session on “new frontiers in design of experiments”; presentation title: “*Robust design and optimization for response surfaces in the multiple response case: developments and critical aspects*” (author: Berni R.).
- S.I.S. Meeting- June 2012- Faculty of Economics- University of Rome “La Sapienza; Solicited session: “New trends in computer models and experiments”; presentation title: “*Bayesian T-optimal designs by simulation: a case-study on model discrimination*” (authors: Berni, Stefanini).
- ENBIS Conference September 2012, Faculty of Economics, Ljubana, Slovenia; “ENBIS-DEINDE Invited Session”; presentation title: “*Split-plot design and mixed response surface models*” (author: Berni R.).
- ENBIS Session In IMEKO, IMEKO Conference September 2015, Praha, R.Ceca; “ENBIS-IMEKO Invited Session”; presentation title: “*Alternative statistical analysis of interlaboratory comparison measurement results*” (author: Berni R., Carobbi C.).
- COMPSTAT 2016: Invited talk in the Session: Optimal designs for complex models by simulations, organizzatore: J.F. Lopez-Fidalg Oviedo, Spagna, 23-26 Agosto 2016; Presentation title: “*Optimal Bayesian design via MCMC simulations: a case study in the technological field*” (author: Berni R.)
- ICISE 2016: 4th International Conference of the Interface between Statistics and Engineering, Palermo, Italy, 20-22 June 2016; Invited Talk, presentation title: “*Split-Plot Design And Modelling For Novel Gas Sensing Materials*” (authors: Berni R., Bertocci F.).
- ENBIS 2017: Chair and organizer of the Organized Session “*Design of Experiments for the product quality and sustainability in agri-food systems*”, XVII ENBIS Annual Conference, September 2017, Naples, Italy.
- ENBIS 2018: Invited talk “*Optimal Bayesian design via MCMC simulations for a soldering reliability study*” (author: R.Berni)

RESEARCH INTERESTS:

In general, the main topics of interest pertain to the experimental design theory as well as applications; moreover a peculiar of the research is related of the design of experiments applied for the improvement the quality of products and services. To this end, since 1991, statistical quality control in the design stage and experimental designs have played a key role. In fact, starting with the PhD Thesis, where alternative statistical methods and models (response surface methodology and generalized linear models) were suggested and applied, the following research themes have been devoted to:

1. Improvement of the evaluation and quality of products and processes through the design of experiments; in this topic, the optimization process and robust design, applied especially to the multiresponse case together with a dual response approach, are studied by suggesting new optimization measures and performing new experimental planning in the technological field.
2. Evaluation of the preferences and the behavior of consumers with respect to products and

services; in this spirit, choice experiments and choice modeling (Random Utility Models) are applied and critically revised. The heterogeneity of the consumer and the heteroschedasticity of the alternatives within choices are evaluated.

3. The split-plot design as the main renewed design for a robust process in the multiresponse case. The optimal experimental design and, in particular, the building of experimental designs from observational data; main improvements in this field are related to the application of the D and T- optimum design criteria.

PARTICIPATION IN THE FOLLOWING RESEARCH PROJECTS:

NATIONAL RESEARCH PROJECT

- National Research project MURST Ex 40% , 1999 "Evaluation of Quality, Efficiency and Efficacy of public services, in particular for the health and the education"-National Scientific Coordinator E. Gori; Local Scientific Director: L. Biggeri (duration 24 months).
- National Research project - Ministry of Health – Istituto Dermopatico dell’Immacolata-IDI (IRCCS): Oriented Research for 2000“ Systems of indicators for the evaluation and management of welfare activities” National Scientific Director M.Braga; Scientific Director of operating unit no. 3 (“G. Parenti” Department of Statistics - Univ. of Florence): A. Biggeri (duration 24 months).
- National Research project (PRIN), 2004, “Learning in graphical models causal inference with applications in the social-economic, genetic and forensics fields”, National Director Guido Consonni, University of Pavia; Local Scientific Director: Fabio Corradi (duration 24 months).
- National Research project (PRIN), 2007, “Measuring effectiveness and satisfaction in the educational processes through statistical models”- National Director: Paola Monari, University of Bologna; Local Scientific Director: Matilde Bini (duration 24 months).
- National Research project MIUR Ex 40%, 2008 (approved January 2010), “Latent class and multilevel models: methodology and applications in evaluation and causal inference” National Director: Paola Monari, University of Bologna; Local Scientific Director: Carla Rampichini (duration 24 months).
- Project 2016: Design and analysis of experimental and observational studies for decisions. University of Florence, Main Director: Fabrizia Mealli (duration 24 months).

INDIVIDUAL RESEARCH PROJECT (ANNUAL DURATION)

- University Research Project Ex 60%, 2003, “Observational data and optimal design: new methodological and applied aspects”.
- University Research Project Ex 40%, 2004 “Learning in graphical models and causal inference with special regard to socio-economic genetic and forensic themes”.
- University Research Project Ex 60%, 2004, “Validity of the *conjoint analysis* and evaluation of a University course”.
- University Research Project Ex 60%, 2005, “Efficient experimental designs for the evaluation of the environment damage”.

- University Research Project Ex 60%, 2006, “*Split-plot and robust design in a multiple response case*”.
- University Research Project Ex 60%, 2007, “Evaluation and application of multi-attribute methods”.
- University Research Project Ex 60%, 2008, “Alternative measures of optimization for robust-design”.
- University Research Project Ex 60%, 2009, “Choice preference and *conjoint analysis* at evaluating quality food products”.
- University Research Project Ex 60%, 2010, “Variance components, Bayesian analysis and robust design”.
- University Research Project Ex 60%, 2011, “Split-plot design and mixed response surface models”.
- University Research Project Ex 60%, 2012, “Reliability and process optimization of electronic components”.
- University Research Project Ex 60%, 2013, “Choice experiments and modeling: a new research in the environmental field”.
- University Research Project Ex 60%, 2014, “Process optimization through Kriging models and computer experiments”.
- MIUR Research Ex 60%, 2015, “Bayesian optimal designs for reliability studies”.
- MIUR Research Ex 60%, 2016, “Strip-Plot Designs and Generalized Linear Mixed Models-GLMMs For Optimizing Gas Sensor Materials”.

Reviewer activities

- Since April 2011, on the MIUR list of Reviewers.
- *Applied Stochastic Models in Business and Industry* – Ed. Wiley-Blackwell.
- *Automatic in Construction* – Ed. Elsevier.
- *Communications in Statistics - Simulation and Computation*- Ed. Taylor & Francis.
- *Statistical Methods & Applications* – Ed. Springer.
- *Quality Reliability Engineering International* – Ed. Wiley-Blackwell.
- *Materials and design* – Ed. Elsevier
- *Journal of Cleaner Production* – Ed. Elsevier
- *Computers and Industrial Engineering*– Ed. Elsevier

Journal activities

- Since January 2016, Editorial Manager of Italian Journal of Applied Statistics (IJAS).

Conference organization and Scientific Committes

- Chair of the Organizing and Scientific Committees of the ENBIS Spring Meeting 4th-6th June

2018, Florence (Italy) titled: “*Design of Experiments for the product quality and sustainability in agri-food systems*”, and Pre-event: “*Statistics and Engineering for Companies*” June, 4th 2018.

- Member of the Organizing Committee of the next XXVIII Annual ENBIS Conference, Nancy, France, 2018.
- Chair of the Programme Committee of the next Annual ENBIS Conference, Budapest, Hungary, September 2019.
- Chair of the Organizing and Scientific Committees of the Workshop Statistics and Innovation for Industry 4.0- February 20-21, 2020. Florence, Italy (StEering Inter-University Research Center: design quality and reliability).

VISITING PERIODS

- Visiting Professor at Florida State University (Marketing Faculty and FSU College of Business) for a research collaboration in quantitative marketing with prof. Chales Hofacker. January 29-february 7, 2017.
- Visiting Professor at Virginia Polytechnic Institute and State University, Department of Statistics for a research collaboration in “Design of Experiments and Robust Process Optimization in the technological field” with professor G. Geoffrey Vining. December 5-December 13, 2017.

SCIENTIFIC COORDINATOR – INTERNAZIONAL RESEARCH AGREEMENT

- Scientific Coordinator of P.I.A project: Gordon Geoffrey Vining, Department of Statistics, Virginia Tech., Blacksburg, USA; Visiting at Dept. of Statistics Computer Science Applications “G.Parenti” period: November 6th 2018-January 2nd 2019.
- Scientific Coordinator of the International Research Agreement between the Dept. of Statistics Computer Science Applications “G.Parenti” and the University of Navarra, Spain (Scientific Coordinator for the Univ. of Navarra: JF Lopez-Fidalgo) – period: 2017-2020.

Main Publications

1. Berni R., 1995, "*Metodi di Taguchi nel controllo di qualità off-line; Superfici di Risposta e Modelli Lineari Generalizzati*", English title: “Taguchi’s methods in off-line quality control; Response Surface Methodology and Generalized Linear Models” PhD Thesis, University of Florence.
2. Berni R., 1996, "*Generalized Linear Models as an alternative approach to the Taguchi's two-step procedure*", *Statistica Applicata (Italian Journal of Applied Statistics)*, Vol.8, n.4, Italy, pp.769-786.
3. Berni R. Farini L., 1999, "*Experimental design, location and dispersion effects in off-line Quality Control*", *Statistica Applicata (Italian Journal of Applied Statistics)*, Vol. 11 n.1, Italy, pp. 59-75.
4. Berni R. Bracaloni M., 1999, "*Affidabilità di Sistema: la Failure Mode And Effect Analysis (FMEA) di Progetto per la valutazione del rischio nel settore ortodontico*", *Quaderni di Statistica Economica, Scritti di Statistica Economica 5*, Rocco Curto Editore, Naples, pp. 29-70.
5. Toti S., Berni R., Braga M., Marchi M., 2001, “*La valutazione dell'efficienza tecnica in*

ambito sanitario. Un confronto tra Data Envelopment Analysis (DEA) e Stochastic Frontier Regression (SFR)”, *Statistica Applicata (Italian Journal of Applied Statistics)*, Vol.13 n.4, pp. 431-446.

6. Berni R. Grassini L., 2002, *"La rilevazione della customer satisfaction e della qualità del servizio mediante indagine CATI. Il caso del trasporto pubblico locale"*, *Quaderni di Statistica Economica, Scritti di Statistica Economica n.9*, pp.: 61-85 - Liguori Editore, Naples
7. Berni R., Grassini L., 2002, *"La Fault Tree Analysis (FTA) quantitativa per la valutazione di un corso di laurea"*, *Statistica Applicata, (Italian Journal of Applied Statistics)*, Vol.14 n.1, pp. 43-58.
8. Berni R., 2003, *"The use of observational data to implement an optimal experimental design"*, *Quality and Reliability Engineering International, Special Issue, Vol. 19 n.4*, J.Wiley & Sons Ltd., West Sussex, UK, 2003, pp.: 307-315.
9. Berni R., 2005, *"Optimal experimental design from observational data: weights and the stopping rule"*, *Statistica Applicata, (Italian Journal of Applied Statistics)*, Vol.17 n.1, pp.: 5-24.
10. Berni R., Gonnelli C., 2006, *"Planning and optimization of a numerical control machine in a multiple response case"*, *Quality and Reliability Engineering International, Special Issue, Volume 22 (5)*, J.Wiley & Sons Ltd., West Sussex, UK, pp.: 517-26.
11. Berni R., 2007, *"Progettazione e applicazione della Conjoint Analysis opportunamente modificata per la valutazione dell'offerta formativa di un corso di laurea"*, *Statistica Applicata (Italian Journal of Applied Statistics)*, vol.19, pp.: 41-57
12. Berni R., 2009, *"Response Surface Methodology and multiple response case: optimization measures, developments and comparisons"*, in: *Reliability Engineering Advances* (Ed. Hayworth G.I.), Nova Science Publishers Inc., N.Y., USA, ch.10, pp.: 287-304.
13. Berni R., Rivello R., 2009, *"Choices and conjoint analysis: critical aspects and recent developments"*, forthcoming in: *"Statistical Methods for the Evaluation of Educational Services and Quality of Products"* (Eds. Bini M., Monari P., Piccolo D., Salmaso L.), Series Contribution to Statistics, Physica- Verlag, Heidelberg, Germany, ch.8, pp.: 119-137.
14. Berni R., Romani A., Rivello R., 2009, *"Consumer preferences and territorial certification: the case of four Val D'Orcia food products"*, *Quaderni Statistica, Liguori Editore, Napoli, Italy vol.11*, pp.: 203- 227.
15. Pignotti M.S., Berni R., 2009, *"Extremely preterm births. End of Life decisions in European countries"*, in publication on *Archives of Disease in Childhood- Fetal & Neonatal*, British Medical Journal (BMJ), UK. *Archives of Disease in Childhood- Fetal & Neonatal*, British Medical Journal (BMJ), doi: 10.1136/adc.2009.168294; vol.95, n.4, pp.: F273-F276.
16. Berni R., 2010, *"Split-plot for robust design: weighting and optimization in the multiple response case"*, in: *MoDA 9- Advances in Model-Oriented Design and Analysis*, (Eds. Giovagnoli A., Atkinson A.C., Torsney B.; Co-Eds C. May) - Contribution to Statistics, Springer-Verlag, Heidelberg, Germany, pp.: 25-32.
17. Catelani M., Scarano V.L., Bertocci F., Berni R., 2011, *"Optimization of the soldering process*

with ECAs in electronic equipments: characterization measurement and experimental design”, IEEE Transactions on Components, Packaging and Manufacturing Technology, U.S.A. vol. 1, n.10, pp.: 1616-1626.

18. Berni R., 2012, “*Quality and reliability in top-event estimation: quantitative Fault Tree Analysis in case of dependent events*”, Communications in Statistics - Theory and Methods, vol. 41 (16-17), pp 3138-3149; doi: 10.1080/03610926.2011.621574.
19. Berni R., Lombardi G.V., 2012, “*Agricultural multi-functional vehicles and the environment: choice experiments and random utility models for investigating renewable energies*”, forthcoming on Statistica Applicata, Vol. 22, n. 3, pp.: 1-13.
20. Catelani M., Scarano V.L., Berni R., 2012, “*Optimization of accelerated testing through Design of Experiment for ageing of Lead-free electronic interconnection material* “ International Journal of Metrology and Quality Engineering (IJMQE), Cambridge University Press, pp.: 1-9.
21. Berni R., Mealli F., 2013, “*Analisi delle scelte modali per la mobilità fiorentina: un esperimento di scelta*”, Collana Studi e Approfondimenti - IRPET, ISBN 978-88-6517-042-7, pagg.: 1-27, <http://www.irpet.it/archivio-pubblicazioni>.
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