CURRICULUM VITÆ

Name and surname: **Aldo GOIA**
Date of birth: September 3, 1971
Professional address:

Dipartimento di Studi per l'Economia e l'Impresa
Università del Piemonte Orientale "A. Avogadro"
Via Perrone, 18 – 28100 Novara
Tel.: +39 0321 375319
E.mail: aldo.goia@uniupo.it

EDUCATION

- Graduated in Business and Economics - University of Torino (Italy).
- DEA (Diplôme d'études approfondies) in Applied Mathematics: Probability and Statistics. University Paul Sabatier (Toulouse - France).
- PhD (Applied Mathematics - Statistics) - Université Paul Sabatier (Toulouse, France) and Università di Torino (Italy) - Advisors: P. Sarda and P. Vieu.

POSITION

- 2023-present – Full Professor of Statistics (SECS-S/01) – Università del Piemonte Orientale – Dipartimento di Studi per l'Economia e l'Impresa (DiSEI).
- 2010-2023 – Associate Professor of Statistics (SECS-S/01) – Università del Piemonte Orientale – Dipartimento di Studi per l'Economia e l'Impresa (DiSEI).
- 2001-2010 – Researcher of Economic Statistics – Università del Piemonte Orientale – Dipartimento di Scienze Economiche e Metodi Quantitativi (SEMeQ).

RESEARCH INTERESTS

Statistics for functional data:

- Linear, semiparametric and nonparametric functional regression models with scalar responses: estimation, testing, theoretical aspects and applications;
- Small–ball probability factorization and estimate of factors: applications in classification, clustering, and modelling of random curves;
- Studying the complexity of functional data: theoretical aspects and applications;
- Analysis of Lorenz curves as functional data.

Nonlinear Principal Components: estimation techniques and applications to goodness-of-fit tests (normality test).
Finance: testing total positivity for yield curves.

FELLOWSHIPS, VISITING, GRANTS, SCIENTIFIC RESPONSIBILITY, AFFILIATIONS

- 2021-present – Scientific responsibility for the project: "FunBigData", PON Innovation & Research 2021, action IV 4. RTD (A). Researcher (RTD.A): Lax Kwo Lik Chan.
- 2020-2022 – Scientific responsibility for the project "Small-ball probabilities in Functional Statistics: theoretical aspects and applications to economic and financial data". Post-doc: Lax Kwo Lik Chan. Funded by Fondazione CRT.

- 2019-2022 – Grant FAR-UPO (Fondo di Ateneo per la Ricerca) – Principal Investigator of the scientific program: “Small-Ball Probabilities e Statistica Funzionale: aspetti teorici ed applicazioni a dati economico-finanziari”.
- 2019 – September and November. Invited Professor (1 month). Institut Denis Poisson, Université d’Orléans (France).
- 2017 – Grant FFABR (Finanziamento annuale individuale delle Attività Base di Ricerca – Legge 232/2016).
- 2016 – October. Invited Professor (1 month): Institut de Mathématique de Toulouse (France).
- 2015-2018 – Grant FAR-UPO (Fondo di Ateneo per la Ricerca) – Partecipant to the scientific program: “Valutazione di prodotti derivati e gestione del rischio controparte”.
- 2015 – GNAMPA-INDAM – Partecipant to the scientific program: “Modelli probabilistici in spazi infinito-dimensionali. Applicazione alla statistica funzionale”.
- 2014 – November. Invited Professor (1 month): Institut de Mathématique de Toulouse (France).
- 2014 – Università Italo-Francese: Scientific Label.
- 2011 – October. Invited Professor (1 month): Institut de Mathématique de Toulouse (France).
- 2007-2009 – PRIN 2006 – Participant to the scientific program: “Rischio di credito e processi di Lévy”.
- 2009 – October and November. Invited Professor (1 month): Toulouse (France) - Group STAPH (Working Group on Functional and Operator-based Statistics).
- 2008-2010 – Fondazione CRT – Partecipant to the scientific program: “Scelte vaccinali ed informazione: modelli matematici ed analisi empirica del caso Piemonte”.
- 2008 – October and November. Invited Professor (1 month): Toulouse (France) - Group STAPH.
- 2008 – February and March. Invited Professor (2 months): Toulouse (France) - Group STAPH.

Affiliations

- SIS – *Società Italiana di Statistica*
- GNAMPA - *Gruppo Nazionale per l'Analisi Matematica, la Probabilità e le loro Applicazioni*

TALKS, SEMINARS AND POSTERS

Invited talks and Seminars

- 2022 – *Invited talk*. COMPSTAT 2022. Bologna (Italy). August, 23-25.
- 2022 – *Invited talk*. SIS 2022. Caserta (Italy). June, 22-24.
- 2019 – *Seminar*. Institut Denis Poisson, Université d’Orleans (France). November, 14.
- 2018 – *Seminar*. Dipartimento di Scienze Filosofiche, Pedagogiche ed Economico-Quantitative. Università “G. d’Annunzio” Chieti-Pescara (Italy). November, 22.
- 2017 – *Invited talk*. XXXI European Meeting of Statisticians (EMS). Helsinki (Finland). July, 24-28.
- 2016 – *Invited talk*. Third Conference of the International Society for NonParametric Statistics (ISNPS). Avignon (France). June 11-16.
- 2015 – *Seminar*. Departament d’Estadística i I.O., Universitat Politècnica de Catalunya, Barcelona (Spain). June, 19.
- 2014 – *Invited talk*. SIS 2014. Cagliari (Italy). June, 11-13.
- 2013 – *Invited talk*. CFE-ERCIM 2013. London (UK). December, 14-16.
- 2013 – *Invited talk*. Workshop on Dependent Functional Data. Göttingen (Germany). January, 24-26.
- 2012 – *Invited talk*. Workshop on New Perspectives in FDA. Caserta (Italy). September, 26-27.
- 2012 – *Invited talk*. First Conference of the International Society for NonParametric Statistics (ISNPS). Chalkidiki (Greece). June 15-19.
- 2012 – *Seminar*. Dipartimento di Scienze Economiche Aziendali e Statistiche. Milano (Italy). March, 8.
- 2010 – *Invited talk*. 42èmes Journées de Statistique. Marseille (France). May, 25-28.

- 2009 – *Lectures*. SIS School. *Sequenze temporali ad alta frequenza: Analisi di dati funzionali – Data Stream Mining*. Caserta (Italy). November, 30 - December, 3.
- 2009 – *Invited talk*. CLADAG-09. Catania (Italy). September, 9-11.
- 2008 – *Invited talk*. Joint Meeting of 4th World Conference of the IASC and 6th conference of the Asian Regional Section of the IASC on Computational Statistics and Data Analysis, Yokohama (Japan). December, 5-8.
- 2008 – *Seminar*. University Paul Sabatier. Toulouse (France) - Group STAPH.
- 2008 – *Seminar*. MOX - Dipartimento di Matematica "F. Brioschi" - Politecnico di Milano (Italy). January, 22.
- 2004 – *Invited talk*. Congrés Franco-Canadien de Mathématiques / Canada-France Meeting of Mathematics. Toulouse (France). July, 12-15.
- 2002 – *Seminar*. Dipartimento di Statistica e Matematica applicata alle scienze umane "Diego de Castro - University of Torino (Italy). November, 13.
- 2000 – *Seminar*. Dipartimento di Economia e Scienze Finanziarie "G. Prato". University of Torino (Italy). May, 31.
- 2000 – *Seminar*. Dipartimento di Statistica e Matematica applicata alle scienze umane "Diego de Castro". University of Torino (Italy). May, 3.

Contributed talks and Posters

- 2017 – *Poster*. 4th International Workshop on Functional and Operatorial Statistics (IWFOS 2017). A Coruña (Spain). June, 15-17.
- 2014 – *Poster*. 3rd International Workshop on Functional and Operatorial Statistics (IWFOS 2014). Stresa (Italy). June, 19-21.
- 2011 – *Contrib. talk.* CALDAG 2011. Pavia. September, 7-9.
- 2011 – *Contrib. talk.* 2nd International Workshop on Functional and Operatorial Statistics (IWFOS 2011). Santander (Spain). June, 16-18.
- 2009 – *Contrib. talk.* S.Co.2009. Milano. September, 13-16.
- 2008 – *Contrib. talk.* XLIV Riunione Scientifica della SIS. Rende. June, 25-27.
- 2007 – *Contrib. talk.* 5èmes Rencontres Statistique Fonctionnelle et Opératorielle. Lille (France). June, 21-22.
- 2006 – *Contrib. talk.* XLIII Riunione Scientifica della SIS. Torino. June, 14-16.
- 2005 – *Contrib. talk.* Convegno Intermedio SIS - Statistica e Ambiente. Messina. September, 21-23.
- 2005 – *Contrib. talk.* CLADAG 2005. Parma. June, 6-8.
- 2005 – *Contrib. talk.* Giornate di Studio sulla Popolazione. Padova. February, 16-18.
- 2004 – *Poster*, 2nd Workshop on Correlated Data Modeling – Commons ideas in Biometrics and Econometrics. Torino. January, 9-10.
- 2002 – *Contrib. talk.* International Conference on Methodology and Statistics. Ljubljiana (Slovenia). September, 16-18.
- 2001 – *Contrib. talk.* International Conference on Methodology and Statistics. Ljubljiana (Slovenia). September, 17-19,
- 2000 – *Contrib. talk.* Fifth Young Statisticians Meeting. Udine. October, 27-29.
- 1999 – *Contrib. talk.* Fourth Meeting of Austrian, Slovenian, Italian and Hungarian Young Statisticians, Pécs (Hungary). October, 8-10.

CONFERENCES AND SESSIONS ORGANIZATION

- 2020 (postponed 2021, online) – Member of the Scientific Program Committee: 5th "International Workshop on Functional and Operatorial Statistics" (IWFOS 2020). Brno (Czech Republic).
- 2017 – Member of the Scientific Program Committee: 4th "International Workshop on Functional and Operatorial Statistics" (IWFOS 2017). A Coruña (Spain).

- 2015 – Sessions co-organizer (with E. Bongiorno): Non- and semi-parametric functional statistics: I. (Modelling) - II. (Description and clustering). CMStatistics 2015: “8th International Conference of the ERCIM WG on Computational and Methodological Statistics”. London (UK).
- 2014 – Co-Chair (with P. Vieu) of the Scientific Committee: 3rd “International Workshop on Functional and Operatorial Statistics” (IWFOS 2014). Stresa (Italy).
- 2013 – Session co-organizer (with P. Vieu): Semi-and-non parametric functional data analysis. 6th International Conference of the ERCIM WG on Computational and Methodological Statistics. London (UK).
- 2009 – Session organizer: Functional Data Analysis. S.Co.2009. Milano.
- 2008 – Member of the Organizing Committee: 1st “International Workshop on Functional and Operatorial Statistics” (IWFOS 2008). Toulouse (France).
- 2007 – Member of the Scientific Program Committee: “5èmes Rencontres de Statistique Fonctionnelle et Opératorielle”. Lille (France).
- 2006 – Member of the Scientific Program Committee: “4èmes Rencontres de Statistique Fonctionnelle et Opératorielle”. Grenoble (France).
- 2005 – Member of the Scientific Program Committee: “3èmes Rencontres de Statistique Fonctionnelle et Opératorielle”. Toulouse (France).
- 2004 – Member of the Organizing Committee: “2nd Workshop on Correlated Data Modeling”. Torino (Italy).

EDITORIAL AND REVIEWING ACTIVITY

- 2014-present – Associate Editor of the international review *Computational Statistics*.
- 2014 – Book co-editor: *Contributions in infinite-dimensional statistics and related topics*. Società editrice Esculapio. Bologna.
- 2014-2015 – Guest Editor of the Special Issue “Statistical models and methods for high or infinite dimensional spaces” in the *Journal of Multivariate Analysis*.
- *Reviewer activity for the following journals*:
  Annals of Statistics, Communications in Statistics, Comptes Rendus Mathématique, Computational Statistics, Computational Statistics and Data Analysis, Electronic Journal of Statistics, Energy Economics, Environmental Monitoring and Assessment, IEEE Transaction on Power Systems, International Journal of Forecasting, Italian Journal of Applied Statistics, Journal of the American Statistical Association, Journal of Multivariate Analysis, Journal of Nonparametric Statistics, Metrika, SORT, Statistical Methods & Applications, Statistics and Computing, Statistics and Probability Letters, Survey Methodology, Technological Forecasting and Social Change, Test, WIREs Computational Statistics.
- *Reviewer activity for the following books*:
  Functional and High-Dimensional Statistics and Related Fields (Springer, 2020), Functional Statistics and Related Fields (Springer, 2017), Contributions in infinite-dimensional statistics and related topics (Esculapio ed., 2014), Topics in Nonparametric Statistics: Proceedings of the First Conference of the International Society for Nonparametric Statistics (Springer, 2014), Book of short papers - SIS 2010 (Pearson, 2010), Functional and Operatorial Statistics (Springer, 2008).

Ph.D JURIES AND JUDGING PANELS

- 2021 – International examiner of Ph.D. thesis (candidate: Silvia Novo Diaz), Universidad de A Coruña (Spain).
- 2021 – Appointed member of the judging panel. RTD (A). Università del Piemonte Orientale (Italy).
- 2018 – Ph.D. thesis reviewer. Ph.D. in Management Science, XXX Cycle, IMT School for Advanced Studies, Lucca (Italy).
- 2019 – Appointed member of the judging panel. RTD (B). Università del Piemonte Orientale (Italy).

- 2016 – International examiner of Ph.D. thesis (candidate: Paula Raña Miguez), Universidad de A Coruña (Spain).
- 2016 – Appointed member of the judging panel. RTD (B). Università del Piemonte Orientale (Italy).
- 2016 – Appointed member of the judging panel. RTD (A). Politecnico di Milano (Italy).
- 2014 – Appointed member of the judging panel. RTD (Senior). Politecnico di Milano (Italy).
- 2012 – Appointed member of the judging panel. RTD (A). Università del Piemonte Orientale (Italy).
- 2011 – Member of the Jury of Ph.D. thesis (candidate: Amel Tadj), Université Paul Sabatier (Toulouse, France).
- 2010 – Appointed member of the judging panel. Ricercatore Universitario. Milano Bicocca (Italy).

PUBLICATIONS

Refereed Journal Publications

1. Bongiorno, E.G., Chan, L., Goia, A. (2023). Detecting the Complexity of a Functional Time Series. *Journal of Nonparametric Statistics*. Forthcoming.
2. Chan, L., Delsol, L., Goia, A. (2023). A Link Function Specification Test in the Single Functional Index Model. *Advances in Data Analysis and Classification*. Forthcoming.
3. Di Brisco, A., Bongiorno, E.G., Goia, A., Migliorati S. (2023). Bayesian Flexible Beta Regression Model with Functional Covariate. *Computational Statistics*, **38**, 623–645.
4. Aubin, J.B., Bongiorno, E.G., Goia, A. (2022). The correction term in a Small-Ball Probability factorization for random curves. *Journal of Multivariate Analysis*, **189**, article 104891.
5. Bongiorno, E.G., Goia, A., Vieu, P. (2020). Estimating the complexity index of functional data: some asymptotics. *Statistics and Probability Letters*, **161**, article 108731.
6. Bongiorno, E.G., Goia, A., Vieu, P. (2019). Modeling functional data: a test procedure. *Computational Statistics*, **34**, 451–468.
7. Bongiorno, E.G., Goia, A. (2019). Describing the concentration of income population by functional principal component analysis on Lorenz curves. *Journal of Multivariate Analysis*, **170**, 10–24.
8. Bongiorno, E.G., Goia, A. (2018). Corrections on Some insights about the small ball probability factorization for Hilbert random elements. *Statistica Sinica*, **28**, 549.
9. Bongiorno, E.G., Goia, A., Vieu, P. (2018). Evaluating the complexity of some families of functional data. *SORT – Statistics and Operations Research Transactions*, **42**, 27–44.
10. Bongiorno, E.G., Goia, A. (2017). Some insights about the Small Ball Probability factorization for Hilbert random elements. *Statistica Sinica*, **27**, 1949–1965.
11. Goia, A., Salinelli, E. (2016). Exploring the Total Positivity of Yields Correlations. *Quantitative Finance*, **16**, 605–624.
12. Goia, A., Vieu, P. (2016). Editorial – An introduction to recent advances in high/infinite dimensional Statistics. *Journal of Multivariate Analysis*, **146**, 1–6.
13. Bongiorno, E.G., Goia, A. (2016). Classification methods for Hilbert data based on surrogate density. *Computational Statistics and Data Analysis*, **99**, 204–222.
14. Goia, A., Salinelli, E., Sarda, P. (2015). A new powerful version of the BUS test of normality. *Statistical Methods and Applications*, **24**, 449–474.
15. Goia, A., Vieu, P. (2015). A Partitioned Single Functional Index Model. *Computational Statistics*, **30**, 673–692.
16. Ferraty, F., Goia, A., Salinelli, E., Vieu, P. (2013). Functional Projection Pursuit Regression. *Test*, **22**, 293–320.
17. Drton, M., Goia, A. (2012). Correction: Moments of minors of Wishart matrices. *The Annals of Statistics*, **40**, 1283–1284.
18. Goia, A. (2012). A Functional Linear Model for Time Series Prediction with Exogenous Variables. *Statistics and Probability Letters*, **82**, 1005–1011.
19. Goia, A., Salinelli, E., Sarda, P. (2011). Exploring the statistical applicability of the Poincaré inequality: a test of normality. *Test*, **20**, 334-352.
20. Goia, A., May, C., Fusai, G. (2010). Functional clustering and linear regression for peak load forecasting. *International Journal of Forecasting*, **26**, 700-711.

21. Goia, A., Salinelli, E. (2010). Optimal nonlinear transformations of random variables. *Annales de l'Institut Henri Poincaré – Probabilités et Statistiques*, **46**, n. 3, 653-676.
22. Berchio, E., Goia, A., Salinelli, E. (2010). On the concavity of the first NLPC transformation of unimodal symmetric random variables. *Applied Mathematics E-Notes*, **10**, 119-127.
23. Centrone, F., Goia, A., Salinelli, E. (2007). Demographic processes in a model of innovation diffusion with dynamic market. *Technological forecasting and social change*, **74**, n. 3, 247-266.
24. Goia A., Portoso G. (2005). Monitoraggio ed analisi degli insediamenti stranieri nei quartieri novaresi. *Rivista Italiana di Economia, Demografia e Statistica*. **LIX**, n. 3/4, 311-320.
25. Cardot, H., Goia, A., Sarda P. (2004). Testing for no effect in functional linear regression models, some computational approaches. *Communications in Statistics: Simulations and Computation*, **33**, n. 1, 179-199.
26. Goia A. (2003). Selection Model in Functional Linear Regression Models for Scalar Response. *Advances in Methodology and Statistics*, **19**, 51-68.
27. Durio, A., Goia, A. (2002). A functional non-parametric model for scalar response with bootstrap confidence intervals: some computational tools and applications. *Advances in Methodology and Statistics*, **17**, 125-136.
28. Ferraty, F., Goia, A., Vieu, P. (2002). Functional Nonparametric Model for Time Series: a Fractal Approach for Dimension Reduction. *Test*, **11**, n. 2, 317-344.
29. Ferraty, F., Goia, A., Vieu, P. (2002). Régression non-paramétrique pour des variables aléatoires fonctionnelles mélangeantes. *Comptes Rendus de l'Académie des Sciences de Paris*. **Ser. I**, **334**, 217-220.

Refereed chapters in book

30. Bongiorno, E.G., Goia, A., Vieu, P. (2020). About the Complexity Function in Small-Ball Probability Factorization. In: *Functional and High-Dimensional Statistics and Related Fields* Aneiros, G., Horová, I, Hušková, M., Vieu, P. (Eds). Springer.
31. Delsol, L. Goia, A. (2020). Pseudo-metrics as Interesting Tool in Nonparametric Functional Regression. In: *Functional and High-Dimensional Statistics and Related Fields* Aneiros, G., Horová, I, Hušková, M., Vieu, P. (Eds). Springer.
32. Delsol, L. Goia, A. (2020). Testing a Specification Form in Single Functional Index Model. In: *Functional and High-Dimensional Statistics and Related Fields* Aneiros, G., Horová, I, Hušková, M., Vieu, P. (Eds). Springer.
33. Aubin J.B., Bongiorno, E.G., Goia, A. (2017). An asymptotic factorization of the Small–Ball Probability: theory and estimates. In: *Functional Statistics and Related Fields*, Aneiros G., Bongiorno E.G., Cao R., Vieu P. (Eds). Springer.
34. Bongiorno E.G., Goia A., Vieu P. (2017). On the Geometric Brownian Motion assumption for financial time series. In: *Functional Statistics and Related Fields,* Aneiros G., Bongiorno E.G., Cao R., Vieu P. (Eds). Springer.
35. Ferraty, F., Goia, A., Salinelli, E., Vieu, P. (2014). Peak-Load Forecasting using a Functional Semi-Parametric Approach. In: *Topics in Nonparametric Statistics,* Akritas M., Lahiri S. N., and Politis D. (Eds.). Springer Proceedings in Mathematics and Statistics, vol. 74.
36. Bongiorno E. G., Salinelli E., Goia A., Vieu P. (Eds.) (2014). *Contributions in infinite-dimensional statistics and related topics*. Società editrice Esculapio. Bologna.
37. Amighini A., Bongiorno E. G., Goia A. (2014). A classification method for economic aggregates by using concentration curves. In *Contributions in infinite-dimensional statistics and related topics*. Bongiorno E. G., Salinelli E., Goia A., Vieu P. (Eds.). Società editrice Esculapio. Bologna.
38. Goia A., Vieu P. (2014) Some advances on semi-parametric functional data modelling. In *Contributions in infinite-dimensional statistics and related topics*. Bongiorno E. G., Salinelli E., Goia A., Vieu P. (Eds.). Società editrice Esculapio. Bologna.
39. Ferraty, F., Goia, A., Salinelli, E., Vieu, P. (2011). Recent advances on Functional Additive Regression. In: *Recent advances in Functional Data Analysis and related topics,* Ferraty, F. (Ed.). Physica-Verlag.
40. Ferraty, F., Goia, A., Vieu, P. (2007). Nonparametric functional methods: new tools for

chemiometric analysis. In: *Applied Biostatistics: Case studies and Interdisciplinary Methods*, Härdle, W., Mori, Y., e Vieu, P. (Eds.). Springer Verlag.

Monograph

41. Goia, A. (2003). *Contribution à l'étude des modèles de régression pour variables aléatoires fonctionnelles*. PhD Thesis. Université Paul Sabatier – Toulouse III.
42. Ferraty, F., Goia, A., Vieu, P. (2002). *Statistica funzionale. Modelli di regressione non parametrici.* Franco Angeli, Milano.

Proceedings and Abstracts

43. Chan, L., Goia, A. (2023). Goodness–of–fit test for Single Functional Index Model. *CLADAG 2023 - Books of abstracts and short papers.* Salerno (Italy)
44. Bongiorno, E.G., Chan, L., Goia, A. (2023). Non-parametric dimensionality detection for functional data. *Book of Abstracts. COMPSTAT 2023*. London (UK).
45. Chan, L., Goia, A., Bongiorno, E.G. (2022). On the complexity index of a functional time series. *Book of S.A. ISNPS 2022*. Paphos (Cyprus).
46. Bongiorno, E.G., Goia, A. (2022). Customizing the dimensionality of functional data. *Book of Abstracts. COMPSTAT 2022*. Bologna (Italy).
47. Bongiorno, E.G., Goia, A. (2022). A parsimonious approach to representing functional data. *SIS 2022 - Book of Short Papers*. Caserta (Italy).
48. Bongiorno, E.G., Goia, A. (2022). Modes of variation for Lorenz curves. *SIS 2022 - Book of Short Papers*. Caserta (Italy).
49. Bongiorno, Di Brisco, A., Goia, A., Migliorati, S. (2022). Hilbert principal component regression for bimodal bounded responses. *SIS 2022 - Book of Short Papers*. Caserta (Italy).
50. Bongiorno, E.G., Chan, L., Goia, A. (2021). Evaluating the complexity of a Functional Time Series. *Book of A Abstracts. CFE-CMStatistics 2021*. London (UK).
51. Bongiorno, E.G., Di Brisco, A.M., Goia, A. (2021). Flexible beta regression with functional covariates: a Bayesian approach. *Book of Abstracts. CFE-CMStatistics 2021*. London (UK).
52. Bongiorno, E.G., Chan, L., Goia, A., Vieu, P. (2021). About the complexity of a Functional Time Series. *Book of Abstracts. IWFOS 2021.* Online.
53. Bongiorno, E.G., Goia, A. (2019). Functional principal component analysis for Lorenz curves. *Book of S.A. CRoNoS MDA 2019*. Limassol (Cyprus).
54. Bongiorno, E.G., Goia, A., Vieu, P. (2018). About the complexity of a functional data set. *Book of S.A. COMPSTAT 2018*. Iasi (Romania).
55. Bongiorno, E.G., Goia, A., Vieu, P. (2018). About the complexity of a functional data set. *BoA CFE-CMStatistics 2018*. Pisa (Italy).
56. Bongiorno, E.G., Goia, A. (2017). Density based classification methods for functional data. *CLADAG 2017 - Book of Short Papers*. Milano (Italy).
57. Bongiorno, E.G., Goia, A., Vieu, P. (2017). Evaluating the complexity of functional data. *Book of Abstracts. European Meeting of Statisticians (EMS) 2017*. Helsinki (Finland)
58. Aubin, J.B., Bongiorno, E.G., Goia, A. (2017). An asymptotic factorization of the small-ball probability: Theory and applications. *BoA CFE-CMStatistics 2017*. London (UK).
59. Bongiorno, E.G., Goia, A. (2016). Functional principal components for concentration curves. *CRoNoS Workshop on Functional Data Analysis*. Oviedo (Spain).
60. Bongiorno, E.G., Goia, A. (2016). Functional principal components for concentration curves. *BoA CFE-CMStatistics 2016*. Seville (Spain).
61. Goia A. (2016). Classification methods for Hilbert data based on surrogate density. *Book of S.A. ISNPS 2016*. Avignon (France).
62. Bongiorno, E.G., Goia, A. (2014). A clustering method for functional data. *Book of S.A. ERCIM 2014*. Pisa (Italy).
63. Bongiorno, E.G., Goia, A. (2014). A clustering method for functional data. *Proceedings MBC2 2014*. Catania (Italy).
64. Bongiorno, E.G., Goia, A. (2014). Clustering for functional data. *Book of S.A. METMA VII and*

GRASPA 2014. Torino (Italy).

65. Goia, A. (2014). Some advances on semi-parametric functional data modelling. *Proceedings SIS 2014*. Cagliari (Italy).
66. Bongiorno, E.G., Goia, A. (2014). A clustering method for functional data. *Proceedings SIS 2014*. Cagliari (Italy).
67. Ferraty, F., Goia, A., Salinelli, E., Vieu, P. (2011). Recent advances on Functional Additive Regression. *Proceedings CLADAG 2011*. Pavia (Italy).
68. Goia, A. (2010). A Functional Regression Approach for Prediction in a District-Heating System. *Proceedings 42èmes Journées de Statistique.* Marseille (France).
69. Goia, A., Salinelli, E., Sarda, P. (2009). Test of Normality Based on Nonlinear Principal Components. *Proceedings S.Co.2009*. Milano (Italy).
70. Goia, A. (2009). Functional Linear Regression: Application to Time Series Analysis Prediction. *Book of Short Papers. CLADAG 2009*. Catania (Italy).
71. Goia, A. (2008). A Hybrid Functional Linear Model with Exogenous Variables for Prediction in a District-Heating System. *Proceedings IASC 2008.* Yokohama (Japan).
72. Goia, A., Salinelli, E. (2008). Some Applications of Univariate Nonlinear Principal Components. *Proceedings SIS 2008.* Rende (Italy).
73. Goia, A., May, C. (2008). A functional approach to peak load forecasting. *Proceedings SIS 2008.* Rende (Italy).
74. Goia, A., Salinelli, E. (2006). Some results on marginal nonlinear principal components. *Proceedings SIS 2006.* Torino (Italy).
75. Goia, A., Portoso, G. (2005). Statistical Analysis of the Macro-descriptors for the East Piedmont Rivers. *Proceedings Intermedio SIS 2005*. Messina (Italy).
76. Fusai, G., Goia, A. (2005). Functional Regression Tools for Peak Load Forecasting. *Book of Short Papers. CLADAG 2005*. Parma (Italy).
77. Goia, A. (2000). Testing for no-effect in the functional linear model for scalar response. *Proceedings of "Fifth Young Statisticians Meeting"*, Ed. Università di Trieste.

Technical Reports

78. AA.VV. (2005). *Sperimentazione di modelli di analisi multivariata applicata al ramo responsabilità civile auto, settore autovetture private*. Gruppo Toro Assicurazioni.
79. AA.VV. (2004). *Novara per gli anziani: presente e futuro delle politiche sociali*. Bilancio Sociale del Comune di Novara.
80. Allio, P., Goia, A., Landini, S., Lanzetti, R., Varbella, L. (2003). *Dotazione e criteri di regolazione nei pubblici esercizi in Piemonte.* Rapporto IRES Piemonte.
81. Allio, P., Goia, A., Landini, S., Lanzetti, R., Varbella, L. (2002). *Piccolo, grande, nuovo. Il commercio in Piemonte prima della riforma*. Rapporto IRES Piemonte.

TEACHING

First Cycle (Laurea Triennale) – Università del Piemonte Orientale, DiSEI

- Informatica Applicata (from 2003 to 2005) – 4cfu-32h per year – I year CLEA (Economia Aziendale).
- Laboratorio di Finanza (from 2012 to 2013) – 2cfu-15h per year – III year CLEA (Economia Aziendale).
- Statistica A (from 2011 to 2023) – 8 cfu-60h per year – I year CLEA (Economia Aziendale) – SCES-S/01.
- Statistica applicata (from 2014 to 2017) – 2cfu-15h per year – III year CLEA (Economia Aziendale) – SCES-S/01.
- Statistica C (Novara: from 2003 to 2006, Domodossola: from 2004 to 2006) – 8cfu per year – I year TUR (Promozione e Gestione del Turismo) and I year CLISGI (Servizi giuridici per l'impresa) – SCES-S/03

- Statistica economica / Statistica per l'economia (from 2007 to 2008, from 2015 to 2017) – 6cfu-48h per year – I year TUR (Promozione e Gestione del Turismo) – SCES-S/03.

Second Cycle (Laurea Magistrale) – Università del Piemonte Orientale, DiSEI

- Metodi quantitativi (2023) – 3cfu-23h per year – Giurisprudenza – SCES-S/01.
- Data and Predictive Analytics (from 2018 to 2023) – 4cfu-30h per year – Management & Finanza – SCES-S/01.
- HR Analytics (2018) – 2cfu-15h – Management & Finanza – SCES-S/01.
- Metodi quantitativi – II modulo (from 2012 to 2017) – 4cfu-45h per year – Management & Finanza – SCES-S/01.
- Metodi quantitativi per l’impresa (from 2009 to 2011) – 2cfu-16h / 4cfu-48h per year – ACP (Amministrazione, Controllo e Professione) – SCES-S/01.
- Statistica per la finanza / Statistica per i mercati finanziari (from 2018 to 2020, from 2006 to 2011) – 8cfu-60h per year - Management & Finanza – SCES-S/01.
- Statistics for finance (2022) – 8cfu-60h per year (in English) – Management & Finanza – SCES-S/01.

Support activities, seminars and exercises

- 2018-23 – *Support activities and exercises*: Laboratorio di Statistica (SECS-S/01, Novara) – 10h per year – I year CLEA (Economia Aziendale).
- 2016 – *Seminar*: Metodi Quantitativi per le Decisioni Giuridiche, 15h (SECS-S/01, CdL Giurisprudenza, Novara).

Third Cycle (Dottorato)

- 2018 – Short course in Functional Statistics (6h). PhD Program in Statistics and Mathematical Finance. XXXIII cycle. Università degli studi di Milano Bicocca (Italy). July, 10 and 12.

Lecture notes

- Bongiorno, E.G., Goia, A., *Dispense del corso di Statistica. Primo Modulo – Statistica per Popolazioni*. Last update, 2021.
- Bongiorno, E.G., Goia, A., *Dispense del corso di Statistica. Secondo Modulo – Calcolo delle Probabilità e Statistica Inferenziale*. Last update, 2020.
- Bongiorno, E.G., Goia, A., *Statistica. Primo Modulo – Statistica per Popolazioni. Esercizi svolti*. Last update, 2021.
- Bongiorno, E.G., Goia, A., *Statistica. Secondo Modulo – Calcolo delle Probabilità e Statistica Inferenziale*. *Esercizi svolti*. Last update, 2020.

INSTITUTIONAL ACTIVITY

- 2022-present – President of “Commissione per il Coordinamento dell'Attività Scientifica – DiSEI”.
- 2019-22 – Member of “Commissione per il Coordinamento dell'Attività Scientifica – DiSEI”.
- 2015-16 – Member of “Commissione Strategica – DiSEI”.
- 2015-18 – President of “Commissione Infomatica – DiSEI”.
- 2013 – Member of “Gruppo del Riesame, Corso di Laurea Magistrale in Management e Finanza”.
- 2008 – Member of “Giunta della Facoltà di Economia”, Università del Piemonte Orientale.

AGREEMENTS, CONVENTIONS AND EXTERNAL CONSULTING

- 2022-23 – “Valutazione del rischio di credito”. MyDGI, srl, Parma.

- 2018 – Promontory Financial Group, an IBM Company.
- 2007-2008 – “Osservatorio Immigrazione Novara”. Prefettura di Novara.
- 2007 – “Progetto OPLAB”. Regione Piemonte.
- 2006-08 – “Creazione, validazione e manutenzione di un modello statistico multivariato atto a valutare la rischiosità di futuri affidati sulla base di dati storici forniti da Eurofidi”. Eurofidi, Torino.
- 2004 – “Analisi della Customer Satisfaction sugli Anziani e sui servizi erogati e previsione delle dinamiche degli anziani residenti nel comune di Novara per il prossimo decennio”. Comune di Novara.
- 2004-2005: “Sperimentazione di modelli di analisi multivariata applicata al ramo responsabilità civile auto settore autovetture private”. Gruppo Toro Assicurazioni.
- 2002-2003: “Elaborazioni statistiche e ricerche economico/sociali volte alla definizione di criteri regionali per la concessione di licenze nel settore dei Pubblici Esercizi”. IRES Piemonte.
- 2000-01: “Elaborazioni statistiche ed econometriche per lo studio del commercio in Piemonte per gli anni 1984-98”. IRES Piemonte.
- 1998-03: “Studio e monitoraggio del settore artigiano in Piemonte”. Regione Piemonte.

Il sottoscritto, consapevole che – ai sensi dell’art. 76 del D.P.R. 445/2000 – le dichiarazioni mendaci, la falsità negli atti e l’uso di atti falsi sono puniti ai sensi del codice penale e delle leggi speciali, dichiara che le informazioni rispondono a verità. Il sottoscritto in merito al trattamento dei dati personali esprime il proprio consenso al trattamento degli stessi nel rispetto delle finalità e modalità di cui al d.lgs. n. 196/2003.

Novara, January 25, 2024 Aldo Goia