Curriculum vitae
of
Adelchi Azzalini

(as of October 2010)

Work address

Dipartimento di Scienze Statistiche
Università di Padova
via Cesare Battisti 241–243
35121 Padova, Italia

telephone: +39 049 8274168 (gen. office), +39 049 8274147 (direct)
fax: +39 049 8274170
e-mail: azzalini@stat.unipd.it
World Wide Web: http://azzalini.stat.unipd.it/

Key facts

- ◇ 1951: born in Milan (Italy)
- ◇ 1969–1975: 'laurea' degree in Statistics and Economics, University of Padua, Italy
- ◇ 1975–1976: serving for the compulsory military service
- ◇ 1976–1978: research assistant at the Dept. of Statistics of the University of Padua
- ◇ 1978–1979: M.Sc. in Statistics at the Imperial College, University of London
- ◇ 1979–1981: Ph.D. in Statistics at the Imperial College, University of London
- ◇ 1981–1986: Researcher at the Dept. of Statistics, University of Padua
- ◇ 1986→ : Professor of Statistics at the Dept. of Statistics, University of Padua

Nationality: Italian

Marital status: single person

Affiliations to scientific societies

- ◇ Member of the International Statistical Institute
- ◇ Member of the Bernoulli Society for Mathematical Statistics and Probability
- ◇ Fellow of the Royal Statistical Society
- ◇ Member of the Institute of Mathematical Statistics

Member of the Council of the *Bernoulli Society*, 1991–1994.

Chair of the European Regional Committee of the *Bernoulli Society*, 2006–2008; Past-chair of the committee in 2008–2010

Editorial work

- ◇ Associate Editor of *Applied Statistics*, 1999–2002.
- ◇ Editor of *Bernoulli News*, 2000-2001.
- ◇ Associate Editor of *Scand. J. Statist.*, 2002-2006
- ◇ Associate Editor of *Metron*, 2003-2006
- ◇ Member of the *Advisory Board* of *Metron* (2006–).
- ◇ Member of the Editorial board of the *Encyclopedia of Statistical Sciences*, 2nd ed., Wiley.
- ◇ Chief-editor of the series in 'Statistics and Applied Probability' of Springer-Verlag Italia (2005–)
- ◇ Guest editor, jointly with Antonella Capitanio, of the *Metron* special issue on *Skew-symmetric and flexible distributions*, vol. LXVIII (2010), n. 3.

Meeting committees and related

- ◇ Co-organizer of the 2nd European Young Statisticians Meeting, September 1981, Bressanone/Brixen, Italy.
- ◇ Organiser of the workshop on 'Statistics for Repeated Measurements', 7–9 September 1989, Bressanone/Brixen, Italy.
- ◇ Organizer of the invited speakers session on "'Analysis of repeated measurements" at the 15th International Biometric Conference, 2–6 July 1990, Budapest, Hungary.
- ◇ Organizer of the invited speakers session on repeated measurements at the 19th European Meeting of Statisticians, 2–6 September 1991, Barcelona.
- ◇ Organizer of the session on Nonparametrics & Semiparametrics at the 49th ISI Session, 1993, Florence, Italy.

- ◇ Chairperson of the Scientific Programme Committee for the 1997 IASC Summer School, Padua, Italy.
- ◇ Member of the Scientific Programme Committee for the 19th International Workshop on Statistical Modelling, 2004, Florence, Italy.
- ◇ Co-organizer of the Workshop on Skew-symmetric Distributions, 6–10 April 2008, Bertinoro (Italy)

Short Courses

- ◇ May 1989: Course of "Repeated Measures" for the *Master in Biostatistics*, Limburgs Universitair Centrum, Belgium.
- ◇ November 1992: course on "Generalized Linear Models", given at the Universitad Nacional de Cuyo (Mendoza, Argentina).
- ◇ August 1993: module of "Statistical Inference" for the summer course on *Computational Statistics* organized by ISI/IASC and SIS, Perugia, Italy.
- ◇ September 1994: Two-day course on *An introduction to Smoothing Techniques for Data Analysis*, jointly with Adrian W. Bowman, in connection to the Royal Statistical Soc. Meeting, Newcastle upon Tyne, UK.
- ◇ September 1995: Instructor at the ECAS-95 on *Longitudinal Data Analysis and Repeated Measures*, a course organized by ECAS, European Courses in Advanced Statistics, held in Milton Keynes, UK.
- ◇ July 1999: *An introduction to Smoothing Techniques for Data Analysis*, jointly with Adrian Bowman, a course held in connection with the meeting CLATSE-IV, Mendoza, Argentina.
- ◇ October 2001: *An introduction to Smoothing Techniques for Data Analysis*, University of Girona, Spain.
- ◇ May 2006: *Logistic regression and related themes*. UNESP at Botucatu, Brasil.
- ◇ September 2010: *Flexible distributions*, a course given jointly with Antonella Capitanio at the Dept. Statistical Sciences, University of Bologna (22-24 Sept 2010).

Main talks at meetings and conferences

- ◇ ISCB 1988: Invited speaker at the plenary session on "Repeated Measurements" at the 9^{th} meeting of the International Society for Clinical Biostatistics, held in Innsbruck, 30 August – 2 September 1988.
- ◇ 1990: 'Using nonparametric smoothing in repeated measures data', NATO Advanced Study Institute, Workshop on nonparametric functional estimation, organizer G. G. Roussas (Spetses, Greece, 29/7/1990-4/8/1990)

- ◇ Sept 1991: 'META plus GLIM, an extended data analysis environment' Meeting to celebrate the 25th anniversary of the Statistics Department, University of Glasgow.
- ◇ July 1995: 'Some practical work and software tools for repeated measures analysis', with Monica Chiogna, at 10th International Workshop on Statistical Modelling Innsbruck, Austria: Monday 10 to Friday 14 July 1995
- ◇ "Checking the Validity of Parametric Models Using Nonparametric Estimation: the PLRT approach", 30th Symposium on the Interface: Computing Science and Statistics (Minneapolis, USA, 13-16 May 1998)
- ◇ 22nd EMS, 12-18 August 1998, Vilnius (Lithuania) Talk: Smoothing methods in practical statistical work.
- ◇ CLATSE-IV: Invited talk 'The skew-normal distribution: an overview', Mendoza, Argentina (25–30 July 1999)
- ◇ GOF2000 (Goodness-of-fit Tests and Validity of Models), 29-31 luglio 2000, Paris Invited talk: "On the pseudo-likelihood ratio test for generalized linear models".
- ◇ NordStat 2004: Special invited speaker on 'The skew-normal distribution and related multivariate families', a three-hour lecture in two sessions given at the Nordic Conference on Mathematical Statistics, Jyväskylä, 6–10 June 2004.
- ◇ July 2004: invited talk at the Conference in Honour of Sir David Cox on the Occasion of his 80th Birthday. Neuchatel, July 2004.
- ◇ RBRAS 2006: Invited talk on "Likelihood methods for binary longitudinal data", at the "51ª Reunião Anual da Região Brasileira da Sociedade Internacional de Biometria (RBRAS)", UNESP (Botucatu, Brasil), 24–26 May 2006.
- ◇ SIS 2006: Plenary session on "Some recent depelopments in the theory of distributions and their applications". Atti della XLIII Riuninone Scientifica della "Società Italiana di Statistica". Turin, 14–16 June 2006. (volume Invited Talks, pp. 51–64). ISBN: 88-7178-791-9.
- ◇ MDA 2010: invited talk on "Selection models under generalized symmetry settings" given at "The 7th Conference on Multivariate Distributions with Applications". Maresias, SP, Brazil (8–13 August 2010)
- ◇ SEIO 2010: invited talk for the plenary session on "Skewing Normality 25 Years On". A Coruña, Spain, 14–17 Sept 2010.

Publications

1. A. A. & F. Pesarin (1976): Verifica d'ipotesi statistica non parametrica. *L'Elaborazione Automatica*, vol.2, pp. 53-77.

2. A. A. , G. Diana & P. Iannotta (1978): Analisi statistica di generatori di numeri pseudo-casuali. *L'Elaborazione Automatica*, vol.3, pp. 121-144.

3. A. A. & G. Diana (1981): The distribution of Kolmogorov statistic for discrete variates. *Metron*, vol. 39, pp. 133-140.

4. A. A. (1981): A note on the estimation of a distribution function and quantiles by a kernel method. *Biometrika*, vol.68, pp. 326-8.

5. A. A. (1981): Replicated observations of low order autoregressive time series. *J.Time Series Analysis*, vol.2, pp. 63-70.

6. A. A. (1982): Approximate filtering of parameter driven processes. *J.Time Series Analysis*, vol.3, pp. 219-223.

7. A. A. (1983): Maximum likelihood estimation of order m for stationary stochastic processes. *Biometrika*, vol.70, pp. 381-7.

8. A. A. & D. R. Cox (1984): Two new tests associated with analysis of variance. *J. Roy. Statist. Soc., Series B*, vol.46, pp. 335-343.

9. A. A. (1984): Estimation and hypothesis testing for collections of autoregressive time series. *Biometrika*, vol.71, pp. 85-90; correction: vol.74 (1987), p.667.

10. A. A. (1984): A Markov process with Beta marginal distribution. *Statistica*, vol. XLIV, n.2, pp. 241-243.

11. A. A. & R. Vedaldi (1985): *Introduzione all'inferenza statistica parametrica*. CLEUP, Padova. (Revised print in 1987)

12. A. A. (1985): A class of distributions which includes the normal ones. *Scand. J. Statist.*, vol.12, pp. 171-178.

13. A. A. (1986): Alcuni risultati sull'effetto dell'autocorrelazione quando i dati sono ritenuti indipendenti. In: *Scritti in onore di Francesco Brambilla*, vol. I, Bocconi Comunicazioni Editrice, Milano (pp. 1–9)

14. A. A. (1986): Further results on a class of distributions which includes the normal ones. *Statistica*, vol. XLVI, n. 3, 199–208.

15. A. A. (1987): Growth curves analysis for patterned covariance matrices. In: *New Perspectives in Theoretical and Applied Statistics*, a cura di M. Puri, J. P. Vilaplana e W. Wertz. Wiley, New York. (pp. 63-70)

16. A. A. & A. Giovagnoli (1987): Some optimal designs for repeated measurements in the case of autocorrelated data. *Biometrika*, vol.74, pp. 725-734.

17. A. A. , A. W.Bowman & W. Härdle (1989): On the use of nonparametric regression for model checking. *Biometrika*, vol.76, pp. 1-11.

18. A. A. (1989): An analysis of variance table for repeated measurements with unknown autoregressive parameter. *Applied Statistics*, vol.38, pp. 402-411.

19. M. Ermani, . . . A. A. *et al.* (1990): Use of discriminant analysis for automatic spike and wave detection. *Electroenceph. Clin. Neurophysiol.*, vol. 75, no. 1, p.S41.

20. A. A. & A. W.Bowman (1990): A look at some data on the Old Faithful Geyser. *Applied Statistics*, vol. 39, pp. 357-365.

21. A. A. & A. W. Bowman (1991): Using nonparametric smoothing in repeated measures data. In: *Nonparametric Functional Estimation and Related Topics* (a cura di G.G. Roussas), Kluwer Academic Publisher, pp. 377–387.

22. A. A. & A. C. Frigo (1991): An explicit nearly unbiased estimate of the AR(1) parameter for repeated measurements. *J.Time Series Analysis*, vol. 12, pp. 273–281.

23. A. A. (1992): *Inferenza Statistica, Un'Introduzione Basata sul Concetto di Verosimiglianza*. Springer Verlag, Heidelberg.

24. A. A. & D. M. Titterington (1992): Discussion of a paper by P. Hall & I. Johnston. *J. Roy. Statist. Soc., series B* vol. 54, pp. 517–518.

25. A. A. & C. Capiluppi (1992): META plus GLIM, an extended data analysis environment. In: *Statistical modelling*, edited by P.G.M. van der Heijden, W. Jansen, B. Francis, G.U.H. Seeber, Elsevier Science Publishers, (pp. 35–43)

26. A. A. & A. W. Bowman (1993): On the use of nonparametric regression for checking a linear relationship. *J. Roy. Statist. Soc., series B*, vol. 55, pp. 549–557.

27. M. Minozzo & A. A. (1993): On the unimodality of the exact likelihood function for normal AR(2) series. *J. Time Series Analysis*, vol. 14, pp. 497–509.

28. A. A. (1993): Review of TRUESTAT. *Math&Stat, CTI Centre for Mathematics and Statistics*, vol. 4, n. 4, pp. 34–35.

29. A. A. & M. Chiogna (1993): Exploratory and parametric analysis of repeated measures data: some S-plus tools. Rapporto tecnico n. 3.1993, Dipartimento di Scienze Statistiche, Università di Padova.

30. A. A. & P. J. Diggle (1994): Prediction of Soil Respiration Rates from Temperature, Moisture and Soil Type. *Applied Statistics*, vol. 43, 505–526.

31. A. A. (1994): Logistic regression for autocorrelated data with application to repeated measures. *Biometrika*, vol. 81, 767–775. Amendment: vol. 84 (1997), 989.

32. A. A. (1994): Logistic regression and other discrete data models for serially correlated observations. *J. Ital. Statist. Soc.*, vol. 3, pp. 169-179.

33. A. A. & A. Salvan (1995): *Appunti di Algebra Lineare*. Edizioni Libreria Cortina, Padova.

34. A. A. & M. Chiogna (1995): `rm.tools`: some S-plus tools for the exploratory and parametric analysis of repeated measures data. Rapporto tecnico n. 4.1995, Dipartimento di Scienze Statistiche, Università di Padova. Connected to this, there is a S-plus package `rm.tools` available from the Web server StatLib (`http:\\lib.stat.cmu.edu`), for Unix and MS-Windows environments.

35. A. A. , L. Pace & A. Salvan (1996): Metodi asintotici per l'inferenza basata sulla verosimiglianza. In: *Società Italiana di Statistica: Atti della XXXVIII riunione scientifica*, Rimini, 9–13 aprile 1996, Maggioli Editore (vol. 1, pp.295–306)

36. A. A. (1996): *Statistical Inference: Based on the Likelihood*. Chapman & Hall, London.

37. A. A. & A. Dalla Valle (1996): The multivariate skew-normal distribution. *Biometrika*, vol. 83, 715–726.

38. A. A. & M. Chiogna (1997): *S-Plus* tools for the analysis of repeated measures data. *Computational Statistics*, vol. 12, 53–66.

39. A. A. & A. W. Bowman (1997): *Applied Smoothing Techniques for Data Analysis: the Kernel approach with S-Plus Illustrations*, Oxford University Press, Oxford. Connected to this, there is a S-plus package, called `sm` library, available from the Web server StatLib (`http:\\lib.stat.cmu.edu`), for Unix and MS-Windows environments.

40. A. A. (1998): Checking the Validity of Parametric Models Using Nonparametric Estimation: the PLRT approach. In: *Proceedings of the 30th Symposium on the Interface: Computing Science and Statistics*, (held 13-16 May 1998, Minneapolis, MN, USA), pp. 383–390, edited by Sanford Weisberg, published by the Inferface Foundation of North-America.

41. A. A. (1998): *The library sn for S-plus. Version 0.20*. Software freely available from the WWW page: `http://www.stat.unipd.it/dip/homes/azzalini/SN` (Update: version 0.21, April 1999)

42. A. A. (1999): Some preliminary remarks on the 'Audit Report'. Joint Research Centre of the European Commission, report ISIS/SAIA/146/99.

43. A. A. (1999): Some Bayesian methods for auditing with a scheme for recursive updates. Joint Research Centre of the European Commission, report ISIS/SAIA/147/99.

44. A. A. (1999): Comparison of methods for confidence intervals in audit problems. Joint Research Centre of the European Commission, report ISIS/SAIA/148/99.

45. A. A. (1999): Combination of multiple sites auditing: a Bayesian approach. Joint Research Centre of the European Commission, report ISIS/SAIA/149/99.

46. A. A. & A. Capitanio (1999): Statistical applications of the multivariate skew-normal distribution. *J.Roy.Statist. Soc. B*, **61**, 579–602.

47. A. A. (1999): The matrix inversion formula. In: *Encyclopedia of Statistical Sciences*, update volume 3 (p. 440–1) edited by S.Kotz, C.B.Read and D.L.Banks. Wiley, New Tork.

48. A. A. (1999): Salvan test for normality. In: *Encyclopedia of Statistical Sciences*, update volume 3 (p. 551) edited by S. Kotz, C. B. Read and D.L.Banks. Wiley, New Tork.

49. A. A. & P. Hall (2000): Reducing variability by using bootstrap methods with qualitative constraints. *Biometrika* **87**, 895-906

50. A. A. (2001): *Inferenza statistica: una presentazione basata sul concetto di verosimiglianza*, 2nd ed. Springer-Verlag, Milano. ISBN 88-470-0130-7

51. A. A. (2001): Review of *Statistical inference: an integrated approach*, by H. S. Migon and O. Gamerman. *Statist. Med.* **20**, 000.

52. A. A. (2001): A note on regions of given probability of the skew-normal distribution. *Metron*, **59**, 27–34.

53. A. A. & A. W. Bowman (2001): The `sm` library for `S-plus`, version 2. `http://www.stat.unipd.it/~azzalini/Book_sm/`

54. A. A. (2002): Comment on "Skewed multivariate models related to hidden truncation and/or selective reporting". *Test*, **11**, p. 36.

55. A. Capitanio, A. A. & E. Stanghellini (2003): Some results on graphical models for skew-normal variables. *Scand.J.Stat.*, **30**, 129–144.

56. A. A. & A. W. Bowman (2003): Computational aspects of nonparametric smoothing with illustrations from the `sm` library. *Computational statistics & data analysis* **42**, 545–560.

57. A. A. & A. Capitanio (2003): Distributions generated by perturbation of symmetry with emphasis on a multivariate skew-t distribution. *J.Roy.Statist. Soc. B*, **65**, pp. 367–389

58. A. A. , T. Dal Cappello & S. Kotz (2003): Log-skew-normal and log-skew-t distributions as models for family income data. *J. Income Distribution, Volume 11, Number 3-4*, pp. 13–21. (Fall 2002 - Winter 2003)

59. A. A. & B. Scarpa (2004): *Analisi dei dati e* data-mining. Springer-Verlag Italia, Milano. ISBN 88-470-0272-9.

60. A. A. & M. Chiogna (2004): Some results on the stress-strength model for skew-normal variates. *Metron* **LXII**, n. 3, 315–326.

61. A. A. (2005): Book review: «In All Likelihood» by Yudi Pawitan. *Statist. Med.* **24**, No. 1, 157–158.

62. A. A. (2005): The skew-normal distribution and related multivariate families (with discussion). *Scand. J. Statist.*, **32**, 159–188 (C/R 189–200)

63. J. R. Crawford, . . . A. A. et al. (2006): Testing for a deficit in single-case studies: effect of departures from normality. *Neuropsychologia*, **44**, 666-677.

64. R. B. Arellano-Valle & A. A. (2006): On the unification of families of skew-normal distributions. *Scand. J. Statist.*, **33**, 561–574.

65. A. A. (2006): Skew-normal family of distributions. In: *Encyclopedia of Statistical Sciences*, S. Kotz et al. Editors. (2nd edition, vol. 12, pp. 7780–7785).

66. A. A. & M. G. Genton (2007): On Gauss' characterization of the normal distribution. *Bernoulli* **13**, 169–174.

67. A. A. & N. Torelli (2007): Clustering via nonparametric density estimation. *Statist. & Comp.* **17**, 71–80.

68. M. H. Gonçalves & A. A. (2008): Using Markov chains for marginal modelling for binary longitudinal data in an exact likelihood approach. *Metron* **LXVI**, 157–181.

69. A. A. & M. G. Genton (2008): Robust likelihood methods based on the skew-t and related distributions. *Internat. Statist. Rev.* **76**, 106–129.

70. R. B. Arellano-Valle & AA (2008): The centred parametrization for the multivariate skew-normal distribution. *J. Multiv. An.* **99**, 1362–1382. Erratum: **100** (2009), 816.

71. A. A. , M. G. Genton & B. Scarpa (2010): Invariance-based estimating equations for skew-symmetric distributions. *Metron* **LXVIII**, n. 3, in press.

72. A. A. & A. Bacchieri (2010): A prospective combination of phase II and phase III in drug development. *Metron* **LXVIII**, n. 3, in press.

73. A. A. (2011): Skew-symmetric families of distributions. In: *International Encyclopedia of Statistical Science*, edited by M. Lovric. Springer Verlag. ISBN: 978-3-642-04897-5. To appear.

74. A. A. (2011): Skew-normal distribution. In: *International Encyclopedia of Statistical Science*, edited by M. Lovric. Springer Verlag. ISBN: 978-3-642-04897-5. To appear.