

GUIDO CONSONNI

LIST OF PUBLICATIONS

Articles in journals

26. Consonni, Guido; Massam, H el ene (2011). Parametrizations and reference priors for multinomial decomposable graphical models. *Journal of Multivariate Analysis*. In press.
<http://dx.doi.org/10.1016/j.jmva.2011.08.001>
25. Consonni, Guido; Moreno, Elias; Venturini, Sergio (2011). Testing Hardy-Weinberg equilibrium: an objective Bayesian analysis. *Statistics in Medicine*, **30**, 62-74.
24. Consonni, Guido; Lupparelli, Monia (2009). Bayesian model comparison based on expected posterior priors for discrete decomposable graphical models. *Journal of Statistical Planning and Inference*, **139**, 4165-4175.
23. Consonni, Guido; Guti errez-Pe na, Eduardo; Veronese, Piero (2008). Compatible priors for Bayesian model comparison with an application to the Hardy-Weinberg equilibrium model. *Test*, **17**, 585-605.
22. Tarantola, Claudia; Consonni, Guido; Dellaportas, Petros (2008). Bayesian clustering for row effects models . *Journal of Statistical Planning and Inference*, **138**, 2223-2235.
21. Consonni, Guido; Veronese, Piero (2008). Compatibility of prior specifications across linear models. *Statistical Science*, **23**, 332-353.
20. Consonni, Guido; La Rocca, Luca (2008). Intrinsic tests for the equality of two correlated proportions. *Journal of the American Statistical Association*, **103**, 1060-1069.
19. Consonni, Guido; Pistone, Giovanni (2007). Algebraic Bayesian analysis of contingency tables with possibly zero-probability cells. *Statistica Sinica*, **17**, 1355-1370.
18. Consonni, Guido; Marin, Jean-Michel (2007). Mean-field variational approximate Bayesian inference for latent variables models. *Computational Statistics and Data Analysis*, **52**, 790-798.
17. Consonni, Guido; Leucari, Valentina (2006). Reference priors for discrete graphical models. *Biometrika*, **93**, 23-40.
16. Di Scala, Lilla; La Rocca, Luca; Consonni, Guido (2004). A Bayesian hierarchical model for the evaluation of a website. *Journal of Applied Statistics*, **31**, 15-27.

15. Consonni, Guido; Veronese, Piero; Gutiérrez-Peña, Eduardo (2004). Reference priors for natural exponential families having a simple quadratic variance function. *J. Multivariate Analysis*, **88**, 335-364.
14. Roverato, Alberto; Consonni, Guido (2004). Compatible prior distributions for DAG models. *Journal of the Royal Statistical Society B*, **66**, 47-61.
13. Consonni, Guido; Veronese, Piero (2003). Enriched conjugate and reference priors for the Wishart family on symmetric cones. *Annals of Statistics*, **31**, 1491-1516.
12. Bottolo, Leonardo; Consonni, Guido; Dellaportas, Petros; Lijoi, Antonio (2003). Bayesian analysis of extreme values by mixture modeling. *Extremes*, **6**, 25-47.
11. Consonni, Guido; Veronese, Piero (2001). Conditionally reducible natural exponential families and enriched conjugate priors. *Scandinavian Journal of Statistics*, **28**, 377-406.
10. Consonni, Guido; Leucari, Valentina (2001). Model determination for directed acyclic graphs. *The Statistician*, **50**, 243-256.
9. Consonni, Guido; Veronese, Piero (1995). A Bayesian method for combining results from several binomial experiments. *Journal of the American Statistical Association*, **90**, 935-944.
8. Consonni, Guido; Veronese, Piero (1992). Conjugate priors for exponential families having quadratic variance function. *Journal of the American Statistical Association*, **87**, 1123-1127.
7. Consonni, Guido; Veronese, Piero (1993). Unbiased Bayes estimates and improper priors. *Annals of the Institute of Statistical Mathematics*, **45**, 303-315.
6. Consonni, Guido; Veronese, Piero (1989). Some remarks on the use of improper priors for the analysis of exponential regression models. *Biometrika*, **76**, 101-106.
5. Consonni, Guido; Veronese, Piero (1989). A note on coherent invariant distributions as non-informative priors for exponential and location-scale families. *Communications in Statistics. Theory and Methods*, **18**, 2883-2908
4. Consonni, Guido; Dawid, A. Philip (1985). Decomposition and Bayesian analysis of invariant normal linear models. *Linear Algebra and its Applications*, **70**, 21-49.
3. Consonni, Guido; Scarsini, Marco (1982). The study of concordance within the framework of surface variability theory (in Italian). *Statistica*, **42**, 69-77.
2. Consonni, Guido (1980). Bayesian analysis of a discrimination problem in the nonparametric setting (in Italian). *Rivista di Matematica per le Scienze Economiche e Sociali*, **4**, 89-102. [Corrections *ibidem* 1983, **6**, 108].

1. Consonni, Guido (1980). An inferential procedure on personal income distribution in a partial exchangeability setting (in Italian). Part I, *Giornale degli Economisti e Annali di Economia*, **39**, 651-669. Part II, *ibidem* **39**, 777-802.

Articles in Edited Books

6. Consonni, Guido; La Rocca, Luca (2011). Moment priors for DAG models (with discussion). In *Bayesian Statistics 9* (J.M.Bernardo, M.J. Bayarri, J.O. Berger, A.P. Dawid, D. Heckerman, A.F.M.Smith, M. West editors). Oxford University Press, Oxford. In press.

5. Leucari, Valentina; Consonni, Guido (2003). Compatible priors for causal Bayesian networks. In *Bayesian Statistics 7* (J.M.Bernardo, M.J. Bayarri, J.O. Berger, A.P. Dawid, D. Heckerman, A.F.M.Smith, M. West editors), 597-606. Oxford University Press, Oxford.

4. Consonni, Guido; Veronese, Piero (1992). Bayes factors for linear models and improper priors. In *Bayesian Statistics 4* (J. O. Berger, J.M. Bernardo, A. P. Dawid, A.F.M. Smith editors). Oxford University Press, Oxford, 587-594.

3. Consonni, Guido; Veronese, Piero (1988). Invariance and Bayesian predictive analysis with an application to the diallel cross design. In *Bayesian Statistics 3* (J.M.Bernardo, M.H.DeGroot, D.V.Lindley, A.F.M.Smith editors), Oxford University Press, Oxford, 557-567.

2. Consonni, Guido; Veronese, Piero (1987). Coherent distributions and Lindley's paradox. In *Probability and Bayesian Statistics* (R.Viertl editor), Plenum Press, New York, 111-120.

1. Consonni, Guido; Dawid, A. Philip (1985). Invariant normal Bayesian linear models and experimental designs. In *Bayesian Statistics 2* (J.M.Bernardo, M.H.DeGroot, D.V.Lindley, A.F.M.Smith editors), Elsevier Science Publisher B.V. (North Holland), Amsterdam, 629-644.

Recent Research Reports

4. Consonni, Guido; La Rocca, Luca (2011). Objective Bayes factors for Gaussian Directed Acyclic Graphical models. Quaderni del Dipartimento di Economia Politica e Metodi Quantitativi, Università di Pavia, n. 264. Submitted.

3. Altomare, Davide; Consonni, Guido; La Rocca, Luca (2011). Objective Bayesian search of Gaussian DAG models with non-local priors. Quaderni del Dipartimento di Economia Politica e Metodi Quantitativi, Università di Pavia, n. 263. Submitted.

2. Consonni, Guido; Forster Jonathan J.; La Rocca, Luca (2010). Enhanced objective Bayesian testing for the equality of two proportions. University of Southampton. Southampton Statistical Sciences Research Institute. Working Paper M10/13. Submitted.

1. Casella, George; Consonni, Guido (2009). Reconciling model selection and prediction. [arXiv:0903.3620](https://arxiv.org/abs/0903.3620) [[math.ST](#) [Statistics](#) ([stat.TH](#) [Theory](#))].

Discussions

3. Berti, Patrizia; Consonni, Guido; Pratelli, Luca; Rigo, Pietro (2008). Invited discussion of the paper: "Gibbs sampling, exponential families and orthogonal polynomials" by Diaconis, P.; Khare, K.; Saloff-Coste, L. *Statistical Science*, **73**, 179-183.

2. Consonni, Guido; Giudici, Paolo (1999). Invited discussion of the paper "Computationally efficient methods for selecting among mixtures of graphical models" by Heckerman, D. *et al.* In *Bayesian Statistics 6*, (Berger J.O., Bernardo J.M., Dawid, A.P., Smith, A.F.M. eds), Oxford University Press, 649-652.

1. Consonni, Guido; Veronese, Piero (1997). Invited discussion of the paper "Exponential and Bayesian conjugate families: review and extensions" by Goutiérrez-Peña, E.; Smith, A.F.M. *Test*, **6**, 71-76.

Proceedings

16. Consonni, Guido; Lupparelli, Monia (2009). Expected posterior priors for model comparison in a class of discrete graphical models. Invited paper. Proceedings of the Sixth Conference on Complex Models and Computational Methods for Estimation and Prediction (SCO2009). M.M. Paganoni, L. M. Sangalli, P. Secchi, S. Vantini (editors). Maggioli, Santarcangelo di Romagna, 127-132.

15. La Rocca, Luca; Consonni, Guido (2009). Non local alternative priors for Gaussian directed acyclic graphical models. Invited paper. Proceedings of the Sixth Conference on Complex Models and Computational Methods for Estimation and Prediction (SCO2009). M.M. Paganoni, L. M. Sangalli, P. Secchi, S. Vantini (editors). Maggioli, Santarcangelo di Romagna, 245-249.

14. Consonni, Guido (2008). Priors for Bayesian model selection: difficulties and remedies. Invited paper. In *Atti della LXIV Riunione Scientifica della Società Italiana di Statistica. Sessioni plenarie e specializzate*. (Cosenza, 25-27 giugno 2008). CLEUP, Padova, 259-266.

13. Bottolo, Leonardo; Consonni, Guido (2004). Bayesian clustering of gene expression microarray data for subgroup identification. Invited paper. In *Atti della XLII Riunione Scientifica della Società Italiana di Statistica. Sessioni plenarie e specializzate*. (Bari, 9-11 giugno 2003). CLEUP, Padova, 187-198.
12. Bottolo, Leonardo; Consonni, Guido (2003). Hierarchical mixture priors for the analysis of gene expression data in cancer studies. Invited paper. In *Analisi statistica multivariata per le scienze economico-sociali, le scienze naturali e la tecnologia*. Convegno della Società Italiana di Statistica (Napoli, 9-11 giugno 2003). RCE Edizioni, Napoli, 103-110.
11. Consonni, Guido (2000). Some recent contributions to multidimensional informative and reference distributions for Bayesian analysis. In *Atti della XL Riunione Scientifica della Società Italiana di Statistica*, (Firenze, 26-28 aprile 2000), Società Italiana di Statistica, Roma, 301-312
10. Golinelli, Daniela; Madigan, David; Consonni, Guido (1999). Relaxing the local independence assumption for quantitative learning in acyclic directed graphical models through hierarchical partition models. In *Artificial Intelligence and Statistics 99* (Heckerman, D. e Whittaker, J., eds), Morgan Kaufman Publishers, 203-208.
9. Consonni, Guido; Giudici, Paolo (1997). Modelli di previsione per l'ascolto televisivo. In *Atti del Convegno "La Statistica per le imprese"*, Convegno SIS (Torino 2-4 aprile 1997), **2**, 283-290.
8. Consonni, Guido; Veronese, Piero (1996). Modelli gerarchici partizionali per l'identificazione ed il trattamento di osservazioni eccezionali. In *Atti della XXXVIII Riunione Scientifica della Società Italiana di Statistica*, (Rimini, 9-13 aprile 1996), **2**, Maggioli Editore, Rimini, 733-740.
7. Consonni, Guido; Giudici, Paolo (1993). Learning in probabilistic expert systems. Invited paper. *Workshop on Probabilistic Expert Systems* (R. Scozzafava editor), Società Italiana di Statistica, Roma, 57-78.
6. Consonni, Guido; Veronese, Piero (1990). Distribuzioni iniziali improprie nell'inferenza bayesiana ed indici di divergenza e informazione. In *Atti della XXXV Riunione Scientifica della Società Italiana di Statistica* (Padova 18-21 aprile 1990), Cedam, Padova, **2**, 19-26.
5. Consonni, Guido; Veronese, Piero (1988). Sul significato previsivo di una particolare distribuzione iniziale coniugata nel modello di regressione lineare normale. In *Atti della XXXIV Riunione Scientifica della Società Italiana di Statistica*, (Siena 28-30 aprile 1988), Nuova Immagine Editrice, Siena, **2(II)**, 273-280.
4. Consonni, Guido; Peccati, Lorenzo (1986). Su un problema di barbabetole. In *Atti del decimo Convegno A.M.A.S.E.S* (Siena, 8-10 settembre 1986), Pitagora Editrice, Bologna, 63-79.

3. Consonni, Guido; Veronese, Piero (1986). Modelli statistici ed impostazione previsiva con osservazioni parzialmente scambiabili. In *Atti della XXXIII Riunione Scientifica della Società Italiana di Statistica* (Bari 28-30 aprile 1986), Cacucci Editore, Bari, **2**, 143-150.
2. Consonni, Guido (1984). Disegni sperimentali e modelli lineari normali invarianti: alcune considerazioni relative al caso in cui la matrice di varianze e covarianze non sia nota. In *Atti della XXXII Riunione Scientifica della Società Italiana di Statistica*, (Sorrento, 11-13 aprile 1984), Liguori, Napoli, **1**, 339-350.
1. Consonni, Guido (1983). On measures of concordance. In *Proceedings of the 44th session of the International Statistical Institute* (Madrid, 12-27 September 1983), **2**, 550-553.