

# Cristiano Varin

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NATIONALITY	Italian	
RESEARCH INTERESTS	Statistical methods and applications	
EDUCATION	<b>PhD in Statistics, University of Padova</b> Mar 2003 <ul style="list-style-type: none"><li>Thesis title: <i>Composite Likelihood Inference in Geostatistics</i></li></ul> <b>Laurea in Demography &amp; Social Statistics, University of Padova</b> July 1999 <ul style="list-style-type: none"><li>Awarded with <i>Distinction</i> (110/110 cum laude)</li></ul>	
ACADEMIC POSITIONS HELD	<b>Associate Professor of Statistics, Ca' Foscari University</b> Oct 2015–present <ul style="list-style-type: none"><li><i>Department of Environmental Sciences, Informatics and Statistics</i></li></ul> <b>Assistant Professor in Statistics, Ca' Foscari University</b> Jan 2011–Oct 2015 <ul style="list-style-type: none"><li><i>Department of Environmental Sciences, Informatics and Statistics</i></li></ul> <b>Assistant Professor in Statistics, Ca' Foscari University</b> Feb 2007–Dec 2010 <ul style="list-style-type: none"><li><i>Department of Statistics</i></li></ul> <b>Visiting Professor</b> Feb 2007 <ul style="list-style-type: none"><li><i>MAP 5, University Paris V Descartes</i> (1 month)</li></ul> <b>Assistant Researcher in Statistics</b> Feb 2003–Jan 2007 <ul style="list-style-type: none"><li>Several post-doc positions at universities of Padova and Udine</li></ul> <b>PhD Student in Statistics, University of Padova</b> Sep 1999–Dec 2002 <ul style="list-style-type: none"><li><i>Department of Statistical Sciences</i></li><li>Supervisor: G Masarotto</li><li>Funded by Ministry of Education, University and Research</li></ul>	
HONOURS AND AWARDS	<b>Read Paper</b> , Royal Statistical Society May 2015 <ul style="list-style-type: none"><li>Joint paper with M Cattelan and D Firth read at RSS Ordinary Meeting</li></ul> <b>National Scientific Habilitation Full Professor</b> in Statistics Nov 2014 <b>Gumbel Lecture</b> , German Statistical Society Sep 2006 <ul style="list-style-type: none"><li>Special plenary named lecture awarded to a young statistician</li></ul>	
PROFESSIONAL SERVICE	<b>Editorial:</b> <ul style="list-style-type: none"><li>Associate Editor of <i>Statistical Methods and Applications</i> (the official journal of the Italian Statistical Society) 2018–</li><li>Associate Editor of <i>Journal of the Royal Statistical Society Series C</i> 2013–16</li><li>Guest Associate Editor of <i>Statistica Sinica</i> 2015</li></ul> <b>Conferences/workshops, scientific committees:</b> <ul style="list-style-type: none"><li>'Second Workshop on Composite Likelihood Methods' Banff International Research Station, Canada (also co-organizer) Apr 2012</li><li>'Workshop on Composite Likelihood Methods' University of Warwick, United Kingdom Apr 2008</li></ul> <b>PhD Assessment Committees:</b> <ul style="list-style-type: none"><li>PhD in Science and Management of Climate Change at Ca' Foscari University Feb 2016</li><li>PhD in Environmental Sciences at Ca' Foscari University Dec 2013</li><li>PhD in Statistics at Aarhus University Sep 2013</li><li>PhD in Statistics at University of Padova Apr 2013</li><li>PhD in Statistics at University of Padova Apr 2010</li></ul>	

**Reviewer:**

- *Journals*: Annals of the Institute of Mathematical Statistics; Annals of Applied Statistics; Behavior Research Methods; Bernoulli; Biometrical Journal; Biometrics; Biometrika; Biostatistics; Canadian Journal of Statistics; Computational Statistics; Computational Statistics and Data Analysis; Communication in Statistics - Simulation and Computation; Environmentrics; Foundations and Trends in Econometrics; International Journal of Biostatistics; Journal of Computational and Graphical Statistics; Journal of Multivariate Analysis; Journal of Statistical Planning and Inference; Journal of the American Statistical Association; Journal of the Royal Statistical Society Series A; Journal of the Royal Statistical Society Series B; Journal of the Royal Statistical Society Series C; Journal of Statistical Software; Metron; Psycometrika; SAGE Open Medicine; Soil Research; Stat; Statistical Methods and Applications; Statistical Methods in Medical Research; Statistical Modelling; Statistical Papers; Statistical Science; Statistica Sinica; Statistics and Computing; Statistics in Medicine; Transportmetrika
- Books*: Advances in Econometrics; Copulae in Mathematical and Quantitative Finance
- Proceedings*: Italian Statistical Society Conference; S.Co. Conference

**Research Projects reviewer:**

- Athens University of Economics and Business; Italian Ministry of Education, University and Research; Natural Sciences and Engineering Research Council of Canada; Norwegian Council of Research; Swiss National Science Foundation; The Royal Society of New Zealand.

## VISITING PERIODS

Those listed below are the visiting periods of at least one week:

- University of Toronto, Department Statistics May 2011  
Visiting N Reid
- Universitat Pompeu Fabra Barcelona, Department Economics and Business Nov 2010  
Visiting O Papaspiliopoulos
- University of Warwick, Department of Statistics Mar 2009  
Visiting D Firth
- University Paris V Descartes, MAP5 Jul 2008  
Visiting A Chambaz
- University of Warwick, Department of Statistics Apr 2007  
Visiting D Firth
- University Paris V Descartes, MAP5 Feb 2007  
Visiting A Chambaz
- University Technology Munich, Center for Mathematics Jun 2006  
Visiting C Czado
- University of Warwick, Department of Statistics Sep 2005  
Visiting D Firth
- Norwegian Computing Center Aug–Oct 2002  
Visiting G Høst
- Norwegian Computing Center Mar 2002  
Visiting G Høst
- Norwegian Computing Center Feb–Nov 2001  
Visiting G Høst

## TEACHING

**Doctoral level****At Ca' Foscari University:**

- *Statistical Models for Management Studies* (PhD Management) 2016–17
- *Preparatory Probability* (PhD Management) 2014–16
- *Statistics for Management Studies* (PhD Management) 2014–16
- *Applied Statistics and Geostatistics* (PhD Environmental Sciences) 2011–13  
(2011–12 with C Gaetan)
- *Time Series Analysis* (PhD Economics) 2009–10

**At Sapienza University of Rome:**

- *Likelihood: Extensions and Modifications* (short course, PhD Statistics) Nov 2013

**At University of Milan-Bicocca:**

- *Likelihood: Extensions and Modifications* (short course, PhD Statistics) Apr 2013

## Bachelor & Master level

### At Ca' Foscari University:

- *Statistics II* (Bachelor Management) 2016–17
- *Statistical Inference and Learning* (Master Computer Science) 2015–17
- *Climate Modelling* (Master Environmental Sciences) 2015–16
- *Applied Statistics* (Bachelor Computer Science) 2014–15
- *Data Analysis for Business Decisions* (Master Management) 2012–15
- *Statistics I* (Bachelor Management) 2010–12
- *Statistical Quality Control* (Bachelor Statistics) 2008–10
- *Statistical Models II* (Bachelor Statistics) 2007–08
- *Statistics I* (Bachelor Management) 2007–08
- *Statistical Laboratory with R* (Bachelors Economics and Management) 2006–07

### At the University of Udine:

- *Statistics 2* (Bachelor Biotechnology) 2004–06
- *Applied Statistics* (Master Veterinary) 2003–04

## Teaching Assistance

### At Ca' Foscari University:

- *Statistics I* (Bachelor Management, 2010–13); *Methodological Statistics* (Bachelor Statistics, 2010–11); *Statistics II* (Bachelor Management, 2010–11); *Statistical Models I* (Bachelor Statistics, 2008–09); *Statistical Models II* (Bachelor Statistics, 2008–09); *Statistics I* (Bachelor Statistics, 2006–07); *Statistics II* (Bachelor Statistics, 2006–07); *Computational Statistics B* (Bachelor Statistics, 2006–07)

### At University of Udine:

- *Advanced Financial Time Series* (Bachelor Finance, 2004–06); *Introductory Statistics* (Bachelor Statistics, 2001–03); *Probability* (Bachelor Statistics, 1999–2001)

### At University of Padova:

- *Applied Statistics* (Bachelor Computer Science, 2003–06); *Basic Statistics* (Bachelor Statistics, 2001–03); *Probability* (Bachelor Statistics, 1999–2001)

## High-School Seminar Cycles

- 'Does your mp3 play songs at random?' (Liceo Scientifico L da Vinci Treviso, 2011–12); 'Introduction to probability' (Liceo Scientifico L da Vinci Treviso, 2011–12); 'Brief introduction to statistical inference' (Istituto A Farina Vicenza, 2010–11)

## ACADEMIC

### ADMINISTRATION

### At Ca' Foscari University:

- Member University Quality Assurance Unit 2016–present
  - Faculty Board Ca' Foscari International College 2015–present
  - Member Committee Relationships with the National Council of Research 2015–present
  - Faculty Board PhD School in Science and Management of Climate Change 2013–present
  - Delegate for DAIS Communication 2012–17
  - Member DAIS Research Committee 2011–17
  - Member DAIS Research Funds Committee 2011–16
  - Faculty Board Bachelor in Statistics 2011–14
  - Member Research Funds Committee, Department of Statistics 2010
- (DAIS: Department of Environmental Sciences, Informatics and Statistics)

## GRANTS

### AND

### CONTRACTS

### AWARDED

- **Marie Curie Fellowship** dr. Xanthi Pedeli, European Commission 2016–18  
'SCouT - Sparse Composite Likelihood Inference in Count Time Series'  
Grant amount: 168K euros. Role: Supervisor
- **IRIDE** Individual Research Grant, DAIS Ca' Foscari University 2013–15  
'Development of Flexible Methods for Nonlinear Modelling of Dependent Data'  
Grant amount: 4.5K euros.
- **Banff International Research Station** Conference organization 2012  
'Workshop on Composite Likelihood Methods'  
Co-Investigator with H Joe, D Firth, N Reid, P Song  
Grant amount: unknown, the grant covered accommodation, meals and organization costs for 40 participants. Role: Co-organizer
- **PRIN 2008** Italian Ministry of Education, University and Research 2009–12  
'Approximate Likelihood Methods for Complex Dependence Structures'  
Principal Investigator P Vidoni

	<ul style="list-style-type: none"> <li>○ <b>Cariparo project</b> Cariparo Foundation 2008–11 ‘ML2: Modified Likelihood Methods for Evaluating the Effects of the Mobility Lists Program in the Veneto Region’. Principal Investigator E Battistin</li> <li>○ <b>PRIN 2006</b> Italian Ministry of Education, University and Research 2007–09 ‘New Likelihood Methods for Complex Models’ Principal Investigator P Vidoni</li> <li>○ <b>PRIN 2004</b> Italian Ministry of Education, University and Research 2005–07 ‘Trattamento statistico della complessità e dell’incertezza negli studi ambientali’ Principal Investigator D Cocchi</li> <li>○ <b>PRIN 2002</b> Italian Ministry of Education, University and Research 2003-05 ‘Statistica nel supporto alla decisione ambientale: identificazione, monitoraggio e valutazione di intervento’. Principal Investigator D Cocchi</li> <li>○ <b>Norwegian Council of Research Grant</b> 3-months scholarship 2002 ‘A Comparison of Estimation Procedures Useful in Spatial Statistics’ Supervisor NL Hjort</li> <li>○ <b>PRIN 2000</b> Italian Ministry of Education, University and Research 2001–03 ‘Statistica nella valutazione del rischio ambientale’ Principal Investigator G Lovison</li> <li>○ <b>PhD Scholarship</b> University of Padova 3-years scholarship 2000–02 Funded by the Italian Ministry of Education, University and Research</li> </ul>	
GRADUATE STUDENTS SUPERVISION	<ul style="list-style-type: none"> <li>○ Xanthi Pedeli Marie Curie Fellow, Ca’ Foscari University 2016–18 ‘Sparse composite likelihood inference in count time series’</li> <li>○ Moreno Bevilacqua Post-doc, Ca’ Foscari University 2008–11 ‘Estimating equations and composite likelihoods for dependent data’ jointly supervised with N Sartori</li> <li>○ Manuela Cattelan PhD thesis, University of Padova 2006–09 ‘Correlation models for paired comparison data’ jointly supervised with A Salvan</li> </ul>	
MEMBERSHIPS	<ul style="list-style-type: none"> <li>○ American Statistical Association 2010–present</li> <li>○ Institute of Mathematical Statistics 2010–present</li> <li>○ Royal Statistical Society 2008–present</li> <li>○ Italian Statistical Society 2004–present</li> <li>○ Venice International Center for Climate Change Studies 2014–16</li> <li>○ Center for Estuarine and Coastal Marine Sciences, Ca’ Foscari University 2013–16</li> <li>○ Center for Research in Statistical Methodology, University of Warwick 2008–13</li> </ul>	
INVITED CONFERENCE TALKS	<ul style="list-style-type: none"> <li>○ ‘Gaussian copula regression’ Dec 2017 <i>10th ERCIM International Conference</i>, London</li> <li>○ ‘Designing efficient composite likelihoods’ July 2017 <i>Scalable Statistical Inference</i>, Cambridge</li> <li>○ ‘The ranking lasso’ May 2013 <i>i-like Workshop</i>, Warwick</li> <li>○ ‘Composite likelihoods: An overview with emphasis on biostatistics’ Sep 2012 <i>GDR Statistique &amp; Santé</i>, Rennes</li> <li>○ ‘Hybrid pairwise likelihood analysis of Thurstone-Mosteller models’ Sep 2011 <i>8th Scientific Meeting CLADAG</i>, Pavia</li> <li>○ ‘An overview of composite likelihood methods’ Sep 2010 <i>Royal Statistical Society Conference 2010</i>, Brighton</li> <li>○ ‘An overview of composite likelihood methods’ Aug 2010 <i>73rd Annual Meeting Institute of Mathematical Statistics</i>, Gothenburg</li> <li>○ ‘An overview of composite likelihood methods’ Jul 2009 <i>Workshop on Spatial Extremes and Applications</i>, Lausanne</li> <li>○ ‘On composite marginal likelihood inference for hierarchical models’ Sep 2006 <b>Gumbel Lecture</b> at Annual Meeting of the German Statistical Society, Dresden</li> </ul>	
INVITED CONFERENCE DISCUSSIONS	<ul style="list-style-type: none"> <li>○ N Cressie’s ‘Comparing and selecting spatial predictors using local criteria’ Mar 2013 <i>Workshop on Recent Advances in Statistical Inference</i>, Padova</li> <li>○ Session ‘Regression models for longitudinal multivariate and discrete data’ July 2010 <i>SIS 2010 Conference</i>, Padova</li> <li>○ Session ‘Likelihood-based inference for complex statistical models’ Sep 2007</li> </ul>	

INVITED RESEARCH SEMINARS	○ ‘The role of statistical modelling in climate change studies’ Venice Center for Climate Studies, Ca’ Foscari University	June 2016
	○ ‘Composite likelihood estimation’ Institute of Statistics and Mathematics, Vienna University of Economics and Business	Apr 2016
	○ ‘Gaussian copula regression’ Department of Statistics, University of Innsbruck	Apr 2015
	○ ‘The ranking lasso’ Institute of Statistics and Mathematics, Vienna University of Economics and Business	May 2013
	○ ‘Gaussian copula marginal regression’ CenStat, Hasselt University	Oct 2012
	○ ‘Gaussian dependence models for marginal regression’ Department of Statistics, University of Toronto	May 2011
	○ ‘An overview of composite likelihood methods’ Department of Mathematical Sciences, University of Copenhagen	Jun 2011
	○ ‘Gaussian dependence models for non-Gaussian regression’ Department of Economics and Business, University Pompeu Fabra	Nov 2010
	○ ‘Composite likelihood methods’ Department of Mathematics, University of Oslo	Apr 2009
	○ ‘Marginal regression models with stationary time series errors’ Department of Statistics, University of Warwick	Mar 2009
	○ ‘Gaussian autoregressive moving average copula models’ MAP5, University Paris V Descartes	Jul 2008
	○ ‘Composite likelihood methods in Markov chain models’ MAP5, University Paris V Descartes,	Feb 2007
	○ ‘Composite likelihood methods in Markov chain models’ Department of Statistics, Ludwig-Maximilians University Munich	Jun 2006
	○ ‘Composite likelihoods methods for temporal and spatial data’ Department of Economics and Finance, University Rome Tor Vergata	May 2006
	○ ‘Composite marginal likelihood inference’ Institute of Mathematics, EPFL Lausanne	Jan 2006
	○ ‘Composite marginal likelihood inference’ Department of Statistics, Ca’ Foscari University	Jan 2006
	○ ‘Composite marginal likelihood inference’ Department of Statistics, University of Warwick,	Sep 2005
	○ ‘Marginal composite likelihood inference in GLMMs’ Department of Economics, Finance, and Statistics, University of Perugia	Dec 2004
	○ ‘Pairwise likelihood inference in spatial GLMMs’ Department of Statistics, University of Udine	Feb 2003
	CONTRIBUTED CONFERENCE TALKS	○ ‘Marginal beta regression for time series analysis’ 27th IWSM, Prague
○ ‘Overview of composite likelihood methods’ 2nd Workshop Composite Likelihood Methods, Banff		Apr 2012
○ ‘Gaussian copula regression using R’ UseR! 2011 Conference, Warwick,		Aug 2011
○ ‘The ranking lasso’ Workshop PRIN, Verona		May 2011
○ ‘Hierarchical modelling of adult age-at-death in Paleodemography’ RSS 2009 Conference, Edinburgh		Sep 2009
○ ‘Composite likelihood analysis of mixed autoregressive probit models’ Workshop Composite Likelihood Methods, Warwick		Sep 2008
○ ‘Marginal regression models with correlated normal errors’ Workshop PRIN, Cagliari		May 2009
○ ‘Gaussian autoregressive moving average copula models’ Workshop PRIN, Udine		Jun 2008
○ ‘Pairwise likelihood inference for longitudinal ordinal outcomes’ 27th IWSM, Barcelona		Jul 2007
○ ‘On composite marginal likelihoods’		May 2007

- Workshop PRIN, Venice
- ‘Pairwise likelihood analysis of migraine severity diaries’  
Statistics under one Umbrella, Bielefeld Mar 2007
- ‘Statistical analysis of ordinal categorical time series’  
Statistical Latent Variables Models in Health Sciences, Perugia Sep 2006
- ‘Pairwise likelihood inference for time series models’  
Italian Meeting on Time Series Analysis, Villa Mondragone Apri 2006
- ‘Composite likelihood methods in Markov chain models’  
Workshop PRIN, Venice May 2006
- ‘Composite likelihood inference for ordinal categorical time series’  
World Conference CSDA, Limassol Oct 2005
- ‘Composite marginal likelihood inference’  
EMS summer school, Warwick Sep 2005
- ‘Pairwise likelihood inference for state space models’  
European Meeting of Statisticians, Oslo Jul 2005
- ‘Pairwise likelihood inference for non-linear state space models’  
Workshop on Time Series Analysis and Signal Extraction, Udine Sep 2004
- ‘A pairwise likelihood approach to GLMMs’  
19th IWSM, Firenze Jul 2004
- ‘Reconstruction of Marghera soil using compositional data’  
Workshop GRASPA, Bergamo Feb 2004
- ‘Inference and model selection using composite likelihoods’  
Workshop PRIN, Padova Nov 2003
- ‘Pairwise likelihood inference in spatial GLMMs’  
SPRUCCE Conference, Lund Jun 2003
- ‘Pairwise likelihood inference for spatial GLMMs’  
Workshop in memory of AC Capelo, Padova Jan 2003
- ‘A pairwise framework for geostatistics’  
TIES Conference, Genova Jun 2002
- ‘Generalized linear mixed models for remote sensing applications’  
Workshop GRASPA, Padova Dec 2001

#### REFERENCES

- Professor **David Firth**  
Department of Statistics, University of Warwick  
Zeeman Building, Coventry, CV4 7AL, UK  
[d.firth@warwick.ac.uk](mailto:d.firth@warwick.ac.uk)
- Professor **Guido Masarotto**  
Department of Statistical Sciences, University of Padova  
Via Cesare Battisti, 241/243, 35121 Padova, Italy  
[guido.masarotto@unipd.it](mailto:guido.masarotto@unipd.it)
- Professor **Nancy M Reid**  
Department of Statistics, University of Toronto  
100 St. George Street, M5S 3G3 Toronto, Canada  
[reid@utstat.utoronto.ca](mailto:reid@utstat.utoronto.ca)

# Cristiano Varin: Publications

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ONLINE  
BIBLIOGRAPHY

Google Scholar:

<https://scholar.google.com/citations?user=rgcdVjIAAAAJ&hl=en&oi=ao>

ORCID:

<http://orcid.org/0000-0002-5591-5705>

PAPERS  
IN  
PEER-REVIEWED  
JOURNALS

The three papers highlighted in the list below as **Highly Cited Paper** belong to the top 1% of the most cited papers in the category 'Mathematics' according to the Clarivate Analytics (ex Thompson Reuters) Web of Science **of the last decade**. The paper highlighted as **Read Paper** underwent more extensive peer-review than normal, and was selected for open, published discussion at an *Ordinary Meeting* of the Royal Statistical Society.

- Cattelan M, Varin C (2018). Marginal logistic regression for spatially clustered binary data. *Journal of the Royal Statistical Society, Series C*, to appear.
- Spolaor A, Angot H, Roman M, Dommergue A, Scarchilli C, Vardè M, Del Guasta M, Pedeli X, Varin C, Sprovieri F, Magand O, Legrand M, Barbante C, Cairns WRL (2018). Feedback mechanisms between snow and atmospheric mercury: Results and observations from field campaigns on the Antarctic plateau. *Chemosphere* **19**, 306–317.
- Lacognata C, Crimi F, Guolo A, Varin C, De March E, Vio S, Ponzoni A, Barila G, Lico A, Branca A, De Biasi E, Gherlinzoni F, Scapin V, Bissoli E, Berno T, Zambello R (2017). Diffusion-weighted whole-body MRI for evaluation of early response in multiple myeloma. *Clinical Radiology* **72**, 850–857.
- Kosmidis I, Guolo A and Varin C (2017). Improving the accuracy of likelihood-based inference in meta-analysis and meta-regression. *Biometrika* **104**, 489–496.
- Masarotto G and Varin C (2017). Gaussian copula regression in R. *Journal of Statistical Software* **77**, 1–26.
- **Highly Cited Paper**  
Guolo A and Varin C (2017). Random-effects meta-analysis: The number of studies matters. *Statistical Methods in Medical Research* **26**, 1500–1518.
- Spolaor A, Opel T, McConnell JR, Maselli OJ, Spreen G, Varin C, Kirchgeorg T, Fritzsche D and Vallelonga P (2016). Halogen-based reconstruction of Russian Arctic sea ice extent from Akademii Nauk ice core (Severnaya Zemlya). *The Cryosphere* **10**, 245–256.
- **RSS Read Paper**  
Varin C, Cattelan M and Firth D (2016). Statistical modelling of citation exchange between statistics journals (with discussion). *Journal of the Royal Statistical Society, Series A*, **179**, 1–63.
- Valotto G and Varin C (2016). Characterization of hourly NO<sub>x</sub> atmospheric concentrations near the Venice International Airport with additive semi-parametric statistical models. *Atmospheric Research* **167**, 216–223.
- Falchi A, Varin C, Toscano G and Zendri E (2015). Statistical analysis of the physical properties and durability of water-repellent mortars made with limestone cement, natural hydraulic lime and pozzolana-lime. *Construction & Building Materials* **78**, 260–270.
- Guolo A and Varin C (2014). Beta regression for time series analysis of bounded data, with application to Canada Google Flu Trends. *Annals of Applied Statistics* **8** (1), 74–88.
- Cravero F, Varin C and Malavasi S (2014). Moon-related reproductive patterns in transitional habitats: Insights from a Mediterranean killifish inhabiting North Adriatic salt-marshes. *Estuarine, Coastal and Shelf Science* **139** (20), 60–66.
- Cattelan M and Varin C (2013). Hybrid pairwise likelihood analysis of animal behavior experiments. *Biometrics* **69** (4), 1002–1011.
- Spolaor A, Gabrieli J, Martma T, Kohler J, Bjørkman M, Isaksson E, Varin C, Vallelonga P, Plane JMC and Barbante C (2013). Sea ice dynamics influence halogen deposition to Svalbard. *The Cryosphere* **7**, 1645–1658.

- Spolaor A, Vallelonga P, Plane JMC, Kehrwald N, Gabrieli J, Varin C, Turetta C, Cozzi G, Boutron C and Barbante C (2013). Halogen species record Antarctic sea ice extent over glacial-interglacial periods. *Atmospheric Chemistry and Physics* **13**, 6623–6635.
  - Spolaor A, Vallelonga P, Cozzi G, Gabrieli J, Varin C, Kehrwald N, Zennaro P, Boutron C and Barbante C (2013). Iron speciation in aerosol dust influences iron bioavailability over glacial-interglacial timescales. *Geophysical Research Letters* **40**, 1618–1623.
  - Cattelan M, Varin C and Firth D (2013). Dynamic Bradley-Terry modelling of sport tournaments. *Journal of the Royal Statistical Society, Series C* **62** (1), 135–150.
  - Masarotto G and Varin C (2012). The ranking lasso and its application to sport tournaments. *Annals of Applied Statistics* **4**, 1949–1970.
  - Masarotto G and Varin C (2012). Gaussian copula marginal regression. *Electronic Journal of Statistics* **6** (4), 1517–1549.
  - Guolo A and Varin C (2012). The R package metaLik for likelihood inference in meta-analysis. *Journal of Statistical Software* **50** (7), 1–14.
  - **Highly Cited Paper**  
Varin C., Reid N. and Firth D. (2011). An overview of composite likelihood methods. *Statistica Sinica* **21** (1), 5–42.
  - Lupi P, Manenti FM, Scialà A and Varin C (2011). On the assessment of regulators' efficiency. An application to european telecommunications. *Info* **13** (1), 61–73.
  - Varin C and Czado C (2010). A mixed autoregressive probit model for ordinal longitudinal data. *Biostatistics* **11** (1), 127–138.
  - Varin C and Vidoni P (2009). Pairwise likelihood inference for general state space models. *Econometric Reviews* **28** (1-3), 170–185.
  - **Highly Cited Paper**  
Varin C. (2008). On composite marginal likelihoods. *Advances in Statistical Analysis* **92** (1), 1–28.
  - Hjort NL and Varin C (2008). ML, PL and QL in Markov chain models. *Scandinavian Journal of Statistics* **35** (1), 64–82.
  - Varin C and Vidoni P (2006). Pairwise likelihood inference for ordinal categorical time series. *Computational Statistics and Data Analysis* **51** (4), 2365–2373.
  - Varin C and Vidoni P (2005). A note on composite likelihood inference and model selection. *Biometrika* **92** (3), 519–528.
  - Bellio R and Varin C (2005). A pairwise likelihood approach to generalized linear models with crossed random effects. *Statistical Modelling* **5** (3), 217–227.
  - Varin C, Høst G and Skare Ø (2005). Pairwise likelihood inference in spatial generalized linear mixed models. *Computational Statistics and Data Analysis* **49** (4), 1173–1191.
- BOOK CHAPTERS
- Cattelan M and Varin C (2013). A model for correlated paired comparison data. In *Advances in Theoretical and Applied Statistics*, N Torelli, F Pesarin and A Bar-Hen (Eds), Springer, 167–176.
  - Bhat C, Varin C and Ferdous N (2010). A comparison of the maximum simulated likelihood and composite marginal likelihood estimation approaches in the context of the multivariate ordered response model. In *Advances in Econometrics Volume 26: Maximum Simulated Likelihood Methods and Applications*. C Hill and W Greene Eds, 65–106.
- CONFERENCE PROCEEDINGS
- Pedeli X and Varin C (2017). Pairwise likelihood inference for parameter-driven models. *Proceedings of the Conference of the Italian Statistical Society*, 773–777. Florence, June 28–30, 2017.
  - Pedeli X and Varin C (2017). The pairwise expectation maximization algorithm for fitting parameter-driven models. *Proceedings of the 32nd International Workshop on Statistical Modelling*, 196–199. Groningen, July 3–7, 2017.



- Kosmidis I, Guolo A and Varin C (2016). Penalized likelihood inference in meta-regression. *Proceedings of the 31st International Workshop on Statistical Modelling*, 153–158. Rennes, July 4-8, 2016.
- Cattelan M and Varin C (2014). Composite likelihood estimation in spatial logistic regression. *Proceedings of the 47th Scientific Meeting of the Italian Statistical Society*. Cagliari, June 11-13, 2014.
- Cattelan M and Varin C (2013). Marginal modeling of dependent paired comparison data. *Proceedings of the 28th International Workshop on Statistical Modelling*, 529–532. Palermo, July 8-12, 2013.
- Cattelan M and Varin C (2013). Models for dependent paired comparison data. *Proceedings of the 18th European Young Statisticians Meeting*. Osijek, August 26-30, 2013.
- Cattelan M and Varin C (2013). Marginal regression analysis of dependent animal behavior data. *Proceedings of the IX Conference of Statistics in Life and Environmental Sciences*. Bressanone, June 27-28, 2013.
- Varin C and Guolo A (2012). Marginal beta regression for time series analysis. *Proceedings of the 27th International Workshop on Statistical Modelling*, 357–362. Praha, July 16-20, 2012.
- Cattelan M and Varin C (2011). A Thurstonian model for ranking scientific journals, *Proceedings S.Co. 2011: 7th Conference on Statistical Computation and Complex Systems*. Padova, September 19-21, 2011.
- Cattelan M and Varin C (2011). Hybrid pairwise likelihood analysis of Thurstone-Mosteller models. *Proceedings CLADAG 2011: 8th Scientific Meeting of the Classification and Data Analysis Group of the Italian Statistical Society*. Pavia, September 7-9, 2011.
- Cattelan M and Varin C (2010). A model for correlated paired comparison data. *Proceedings of the 45th Scientific Meeting of the Italian Statistical Society*. Padova, June 16-18, 2010.
- Varin C and Czado C (2007). Pairwise likelihood inference in dynamic models for longitudinal ordinal outcomes. *Proceedings of the 22nd International Workshop on Statistical Modelling*. Barcelona, July 2-6, 2007.
- Varin C and Czado C (2006). On the statistical analysis of ordinal categorical time series with application to migraine severity. *Proceedings of the Conference Statistical Latent Variables Models in the Health Sciences*. Perugia, September 6-8, 2006.
- Bellio R and Varin C (2004). Pairwise likelihood for generalized linear models with crossed random effects. *Proceedings of the 19th International Workshop on Statistical Modelling*. Firenze, July 4-8, 2004.

PUBLISHED SOFTWARE

Open-source packages for the R statistical computing environment, published via the *Comprehensive R Archive Network*:

- Guolo A and Varin C (2011). *metaLik: Likelihood inference in meta-analysis and meta-regression models*. [cran.r-project.org/web/packages/metaLik](http://cran.r-project.org/web/packages/metaLik).
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