

Xanthi Pedeli

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NATIONALITY	Greek	
RESEARCH INTERESTS	Statistical modelling and inference for time series, count data, biostatistics	
EDUCATION	PhD in Statistics, Athens University of Economics and Business <i>Thesis title: Modelling Multivariate Time Series for Count Data</i>	Mar 2011
	Master degree in Biostatistics, National and Kapodistrian University of Athens	July 2006
	Bachelor degree in Statistics, Athens University of Economics and Business	Sep 2003
WORKING EXPERIENCE	Assistant Professor, Athens University of Economics and Business <i>Department of Statistics</i>	July 2018 - present
	Research Fellow, Ca' Foscari University of Venice <i>Department of Environmental Sciences, Informatics and Statistics</i> Marie Skłodowska-Curie Individual Fellowship Project title: <i>Sparse Composite Likelihood Inference in Count Time Series</i> Supervisor: C. Varin	June 2016 - May 2018
	Senior Statistician, Frontier Science Foundation Hellas http://www.frontier-science.gr/	Oct 2013 - May 2016
	Postdoctoral Research Associate, Athens University of Economics and Business <i>Department of Statistics</i> Supervisor: D. Karlis	Oct 2013 - Sep 2014
	Postdoctoral Research Associate, University of Cyprus <i>Department of Mathematics and Statistics</i> Supervisor: K. Fokianos	Oct 2011 - Sep 2013

	PhD Student in Statistics, Athens University of Economics and Business <i>Department of Statistics</i> Supervisor: D. Karlis	July 2007 - Mar 2011
	Research Assistant, National and Kapodistrian University of Athens <i>Medical School, Department of Hygiene, Epidemiology and Medical Statistics</i> Participation in several European research projects	Apr 2006 - Sep 2011
TEACHING	National and Kapodistrian University of Athens Master Program in Biostatistics Instructor in <i>Biostatistics</i>	2014 (fall semester)
	Athens University of Economics and Business Department of Statistics Instructor in <i>Elements of Computing and Computer Programming with S-PLUS and R</i>	2008 - 2010 (summer semesters)
	National and Kapodistrian University of Athens Master Program in Biostatistics Instructor in <i>Statistical Methods in Epidemiology</i>	2007, 2008, 2010 (fall semesters)
FELLOWSHIPS AND AWARDS	Marie Skłodowska-Curie Individual Fellowship <i>European Union's Horizon 2020 research and innovation programme</i>	June 2016 - May 2018
	Student award in honor of Prof. Lagakos <i>6th EMR-IBS Conference</i>	May 2011
PARTICIPATION IN RESEARCH PROJECTS	Programme for the promotion of the exchange and scientific cooperation between Greece and Germany Project title: <i>Bayesian analysis and model selection for discrete high-dimensional data</i> Partners: RWTH Aachen University, Institute of Statistics Athens University of Economics and Business, Department of Statistics Principal Investigators: M. Kateri, I. Ntzoufras	Jan 2014 - Dec 2015
	European study of cohorts for air pollution effects (ESCAPE) Project funded under the European Union's Seventh Framework Programme Theme	June 2008 - June 2012
	Integrated assessment of health risks of environmental stressors in Europe (INTARESE) Project funded under the European Union's Seventh Framework Programme Theme	Nov 2005 - Jan 2011

SHORT-TERM RESEARCH STAYS	Technical University of Dortmund, Faculty of Statistics Visiting R. Fried	Oct-Nov 2016 Mar & May 2018
	RWTH Aachen University, Institute of Statistics Visiting M. Kateri	Apr & Dec 2015, Feb 2014
	Texas A&M University, Department of Statistics Visiting M. Pourahmadi	Oct 2012
INVITED RESEARCH SEMINARS	<i>The saddlepoint approximation for the estimation of higher order integer-valued autoregressive processes</i> University of Padova, Department of Statistical Sciences	Oct 2016
	<i>Likelihood estimation for the INAR(p) model by saddlepoint approximation</i> Athens University of Economics and Business, Department of Statistics	Dec 2014
	<i>On some multivariate time series models for count data</i> Technical University of Dortmund, Faculty of Statistics	Nov 2014
CONTRIBUTED CONFERENCE TALKS	<i>Indirect pairwise fitting of latent autoregressive and moving average models</i> (joint with G. Masarotto and C. Varin) 10th CMStatistics Conference, London, UK	Dec 2017
	<i>The pairwise expectation maximization algorithm for fitting parameter-driven models</i> (joint with C. Varin) 32nd IWSM, Groningen, Netherlands	July 2017
	<i>Pairwise likelihood inference for parameter-driven models</i> (joint with C. Varin) SIS2017, Florence, Italy	June 2017
	<i>Aspects of composite likelihood inference in time series models</i> (joint with C. Varin) 9th CMStatistics Conference, Seville, Spain	Dec 2016
	<i>Adjusting for Selective Crossover in Randomized Clinical Trials: the HERA trial example</i> (joint with U. Dafni, D. Karlis, R.D. Gelber and M.M. Regan) 8th EMR-IBS Conference, Nevsehir-Cappadocia, Turkey	May 2015
	<i>Integer-valued autoregressive models: reliable and practical multivariate perspectives</i> (joint with D. Karlis) Statistische Woche, Hannover, Germany	Sep 2014
	<i>Time Series Models for Syndromic Surveillance and Outbreak Detection</i> (joint with D. Karlis) XXVII International Biometric Conference, Florence, Italy	July 2014
	<i>Cholesky decomposition for multivariate volatilities</i> (joint with K. Fokianos and M. Pourahmadi) 28th IWSM, Palermo, Italy	July 2013

<p><i>On a multivariate integer-valued autoregressive model with Poisson innovations</i> (joint with D. Karlis) 26th Panhellenic Statistics Conference, Piraeus, Greece</p>	<p>May 2013</p>
<p><i>Saddlepoint approximation for INAR(p) processes</i> (joint with A.C. Davison and K. Fokianos, poster presentation) NBER-NSF Time Series Conference, College Station, Texas</p>	<p>Oct 2012</p>
<p><i>Saddlepoint approximation for INAR(p) processes</i> (joint with A.C. Davison and K. Fokianos) 20th International Conference on Computational Statistics, Limassol, Cyprus</p>	<p>Aug 2012</p>
<p><i>Saddlepoint approximation for INAR(p) processes</i> (joint with A.C. Davison and K. Fokianos, poster presentation) International Workshop on Recent Advances in Time Series Analysis, Protaras, Cyprus</p>	<p>June 2012</p>
<p><i>Joint Modeling of Daily Crash Counts and the Risk Impact of traffic exposure and weather conditions in the Netherlands</i> (joint with K. Katsouyanni and D. Karlis) 23rd ISEE Conference, Barcelona, Spain</p>	<p>Sep 2011</p>
<p><i>On some multivariate time series models for count data</i> (joint with D. Karlis) 17th EYSM, Lisbon, Portugal</p>	<p>Sep 2011</p>
<p><i>On a Modified Bivariate INAR(1) Process</i> (joint with D. Karlis) 2nd International Workshop on Integer-Valued Time Series, Protaras, Cyprus</p>	<p>June 2011</p>
<p><i>Modelling Health Surveillance Data via a Bivariate INAR(1) Process</i> (joint with D. Karlis) 6th EMR-IBS Conference, Crete, Greece</p>	<p>May 2011</p>
<p><i>Multivariate Integer-Valued Autoregressive Models with Explanatory Variables</i> (joint with D. Karlis) Greek Stochastics β, Lefkada, Greece</p>	<p>Aug 2010</p>
<p><i>On Some Multivariate Integer-Valued Autoregressive Models</i> (joint with D. Karlis) 28th European Meeting of Statisticians, Piraeus, Greece</p>	<p>Aug 2010</p>
<p><i>On composite likelihood estimation of a multivariate Poisson INAR(1) model</i> (joint with D. Karlis, poster presentation) 25th IWSM, Glasgow, Scotland</p>	<p>July 2010</p>
<p><i>Uncertainty in Bias Estimation: Implication for Health Impact Assessment: An Analysis within the INTARESE Project</i> (joint with K. Katsouyanni) 21st ISEE Conference, Dublin, Ireland</p>	<p>Aug 2009</p>

A Bivariate Integer Autoregressive Model (joint with D. Karlis)
5th EMR-IBS Conference, Istanbul, Turkey

May 2009

REFEREEING Communications for Statistical Applications and Methods, Communications in Statistics - Simulation and Computation, Communications in Statistics - Theory and Methods, Computational Statistics, Computational Statistics and Data Analysis, Econometrics and Statistics, Electronic Journal of Applied Statistical Analysis, FILOMAT, Journal of Applied Statistics, Journal of the Korean Statistical Society, Journal of Multivariate Analysis, Journal of Statistical Planning and Inference, Journal of Statistical Software, Journal of Time Series Analysis, Metrika, Pakistan Journal of Statistics, Statistics, Statistics and Probability Letters, Statistical Papers

PUBLICATIONS

ONLINE
BIBLIOGRAPHY

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PEER-REVIEWED
ARTICLES

A. Spolaor, H. Angot, M. Roman, A. Dommergue, C. Scarchilli, M. Varde, M. Del Guasta, **X. Pedeli**, C. Varin, F. Sprovieri, O. Magand, M.R. Legrand, C. Barbante, W.R.L. Cairns (2018). Feedback mechanisms between snow and atmospheric mercury: Results and observations from field campaigns on the Antarctic plateau. *Chemosphere*, 197: 306-317 (ISSN 0045-6535).

D. Battistel, N.M. Kehrwald, P. Zennaro, G. Pellegrino, E. Barbaro, R. Zangrando, **X. Pedeli**, C. Varin, A. Spolaor, P.T. Vallengona, A. Gambaro, C. Barbante (2018). High-latitude Southern Hemisphere fire history during the mid- to late Holocene (6000–750 BP). *Climate of the Past*, 14: 871-886.

U. Dafni, D. Karlis, **X. Pedeli**, J. Bogaerts, G. Pentheroudakis, J. Tabernero, C.C. Zielinski, M.J. Piccart, E.G.E. de Vries, N.J. Latino, J.Y. Douillard, N.I. Cherny (2017). Detailed statistical assessment of the characteristics of the ESMO Magnitude of Clinical Benefit Scale (ESMO-MCBS) threshold rules. *ESMO Open* Oct 2017, 2 (4) e000216; DOI: 10.1136/esmooopen-2017-000216.

X. Pedeli, A.C. Davison and K. Fokianos (2015). Likelihood estimation for the INAR(p) model by saddlepoint approximation. *Journal of the American Statistical Association*, 110: 1229 - 1238.

X. Pedeli, K. Fokianos and M. Pourahmadi (2015). Two Cholesky-log-GARCH models for multivariate volatilities. *Statistical Modelling*, 15: 345–365.

K. Dimakopoulou, E. Samoli E, R. Beelen, M. Stafoggia, Z.J. Andersen, B. Hoffmann, P. Fischer, M. Nieuwenhuijsen, P. Vineis, W. Xun, G. Hoek, O. Raaschou-Nielsen, A. Oudin, B. Forsberg, L. Modig, P. Jousilahti, T. Lanki, A. Turunen, B. Oftedal, P. Nafstad, P.E. Schwarze, J. Penell, L. Fratiglioni, N. Andersson, N. Pedersen, M. Korek, U. De Faire, K.T. Eriksen, A. Tjønneland, T. Becker, M. Wang, B. Bueno-de-Mesquita, M.Y. Tsai, M. Eeftens, P.H. Peeters, K. Meliefste, A. Marcon, U. Krämer, T.A. Kuhlbusch, M. Vossoughi, T. Key, K. de Hoogh, R. Hampel, A. Peters, J. Heinrich, G. Weinmayr, H. Concin, G. Nagel, S. Ineichen, B. Jacquemin, M. Stempfelet, A. Vilier, F. Ricceri, C. Sacerdote, **X. Pedeli**, M. Katsoulis, A. Trichopoulou, B. Brunekreef, K. Katsouyanni (2014). Air Pollution and Nonmalignant Respiratory Mortality in 16 Cohorts within the ESCAPE Project. *American Journal of Respiratory and Critical Care Medicine*, 189: 684–696.

M. Katsoulis, K. Dimakopoulou, **X. Pedeli**, D. Trichopoulos, A. Gryparis, A. Trichopoulou, K. Katsouyanni (2014). Long-term exposure to traffic-related air pollution and cardiovascular health in a Greek cohort study. *Science of the Total Environment*, 490: 934–940.

A. Gryparis, K. Dimakopoulou, **X. Pedeli**, K. Katsouyanni (2014). Spatio-temporal semiparametric models for NO₂ and PM₁₀ concentration levels in Athens, Greece. *Science of the Total Environment*, 479-480: 21–30.

R. Beelen, G. Hoek, D. Vienneau, M. Eeftens, K. Dimakopoulou, **X. Pedeli**, M.Y. Tsai, N. Künzli, T. Schikowski, A. Marcon, K.T. Eriksen, O. Raaschou-Nielsen, E. Stephanou, E. Patelarou, T. Lanki, T. Yli-Tuomi, C. Declercq, G. Falq, M. Stempfelet, M. Birk, J. Cyrus, S. von Klot, G. Nádor, M.J. Varró, A. Dèdelé, R. Gražlevičienė, A. Mølter, S. Lindley, C. Madsen, G. Cesaroni, A. Ranzi, C. Badaloni, B. Hoffmann, M. Nonnemacher, U. Krämer, T. Kuhlbusch, M. Cirach, A. de Nazelle, M. Nieuwenhuijsen, T. Bellander, M. Korek, D. Olsson, M. Strömgren, E. Dons, M. Jerrett, P. Fischer, M. Wang, B. Brunekreef, K. de Hoogh (2013). Development of NO₂ and NO_x land use regression models for estimating air pollution exposure in 36 study areas in Europe – The ESCAPE project. *Atmospheric Environment*, 72:10–23.

X. Pedeli and D. Karlis (2013). Some properties of multivariate INAR(1) processes. *Computational Statistics & Data Analysis*, 67: 213–225.

X. Pedeli and D. Karlis (2013). On composite likelihood estimation of a multivariate INAR(1) model. *Journal of Time Series Analysis*, 34: 206–220.

X. Pedeli and D. Karlis (2013). On estimation of the bivariate Poisson INAR process. *Communication in Statistics - Simulation and Computation*, 42: 514–533.

D. Karlis and **X. Pedeli** (2013). Flexible bivariate INAR(1) processes using copulas. *Communications in Statistics - Theory and Methods* 42: 723–740.

M. Wang, R. Beelen, X. Basagana, T. Becker, G. Cesaroni, K. de Hoogh, A. Dedele, C. Declercq, K. Dimakopoulou, M. Eeftens, F. Forastiere, C. Galassi, R. Gražulevičienė, B. Hoffmann, J. Heinrich, M. Iakovides, N. Kunzli, M. Korek, S. Lindley, A. Molter, G. Mosler, C. Madsen, M.J. Nieuwenhuijsen, H. Phuleria, **X. Pedeli**, O. Raaschou-Nielsen, A. Ranzi, D. Sugiri, M. Stempfelet, M.Y. Tsai, T. Lanki, O. Udvardy, M.J. Varro, K. Wolf, G. Weinmayr, T. Yli-Tuomi, G. Hoek, B. Brunekreef (2013). Evaluation of land use regression models for NO₂ and particulate matter in 20 European study areas: the ESCAPE project. *Environmental Science & Technology*, 47: 4357–4364.

M. Eeftens, R. Beelen, K. de Hoogh, T. Bellander, G. Cesaroni, M. Cirach, C. Declercq, A. Dedele, E. Dons, A. de Nazelle, K. Dimakopoulou, K. Eriksen, G. Falq, P. Fischer, C. Galassi, R. Gražlevičienė, J. Heinrich, B. Hoffmann, M. Jerrett, D. Keidel, M. Korek, T. Lanki, S. Lindley, C. Madsen, A. Mølter, G. G Nádor, M. Nieuwenhuijsen, M. Nonnemacher, **X. Pedeli**, O. Raaschou-Nielsen, E. Patelarou, U. Quass, A. Ranzi, C. Schindler, M. Stempfelet, E. Stephanou, D. Sugiri, M.Y. Tsai, T. Yli-Tuomi, M.J. Varró, D. Vienneau, S. von Klot, K. Wolf, B. Brunekreef, G. Hoek (2012). Development of Land Use Regression Models for PM_{2.5}, PM_{2.5} Absorbance, PM₁₀ and PM_{coarse} in 20 European Study Areas; Results of the ESCAPE Project. *Environmental Science & Technology*, 46: 11195–205.

N. Papathanasiou, P. Rondogianni, P. Chroni, M. Themistocleous, E. Boviatsis, **X. Pedeli**, D. Sakas and I. Datseris (2012). Interobserver variability, and visual and quantitative parameters of (123)I-FP-CIT SPECT (DaTSCAN) studies. *Annals of Nuclear Medicine*, 26: 234–240.

X. Pedeli, G. Hoek and K. Katsouyanni (2011). Risk assessment of diesel exhaust and lung cancer: combining human and animal studies after adjustment for bias in epidemiological studies. *Environmental Health*, 10:30.

X. Pedeli and D. Karlis (2011). A bivariate INAR(1) process with application. *Statistical Modelling*, 11: 325–349.

E. Pikoulis, E.D. Avgerinos, **X. Pedeli**, I. Karavokyros, N. Bassios and S. Anagnostopoulou (2010). Medical students' perceptions on factors influencing a surgical career: The fate of general surgery in Greece. *Surgery*, 148: 510-515.

G. Giannakopoulos, C. Dimitrakaki, **X. Pedeli**, G. Kolaitis, V. Rotsika, U. Ravens-Sieberer and Y. Tountas (2009). Adolescents' wellbeing and functioning: relationships with parents' subjective general physical and mental health. *Health and Quality of Life Outcomes*, 7: 100.

A. Kyrka, A. Tragiannidis, D. Cassimos, K. Pantelaki, M. Tzoufi, M. Mavrokosta, **X. Pedeli**, F. Athanassiadou, A. Hatzimichael, A. Konstantopoulos, D. Kafetzis and V. Papaevangelou (2009). Seroepidemiology of hepatitis A among Greek children indicates that the virus is still prevalent: Implications for universal vaccination. *Journal of medical virology*, 81: 582-587.

TECHNICAL
REPORTS

X. Pedeli and D. Karlis (2009). Bivariate INAR(1) Models. Technical Report No. 247, Athens University of Economics and Business.

SUBMITTED
PAPERS

X. Pedeli and C. Varin (2018). Pairwise likelihood estimation of latent autoregressive count models (submitted for publication; available at <https://arxiv.org/abs/1805.10865>).

X. Pedeli and D. Karlis (2018). An integer-valued time series model for multivariate surveillance (submitted for publication; available at <https://arxiv.org/abs/1805.08561>).

CONFERENCE
PROCEEDINGS

X. Pedeli and C. Varin (2017). The pairwise expectation maximization algorithm for fitting parameter-driven models. *In Proceedings of the 32nd International Workshop on Statistical Modelling (IWSM 2017)*.

X. Pedeli and C. Varin (2017). Pairwise likelihood inference for parameter-driven models. *In Proceedings of the Conference of the Italian Statistical Society (SIS 2017)*.

X. Pedeli, K. Fokianos and M. Pourahmadi (2013). Cholesky decomposition of multivariate volatilities. *In Proceedings of the 28th International Workshop on Statistical Modelling (IWSM 2013)*.

X. Pedeli, A.C. Davison and K. Fokianos (2012). Saddlepoint approximation for INAR(p) processes. *In Proceedings of the 20th International Conference on Computational Statistics (COMPSTAT 2012)*.

X. Pedeli and D. Karlis (2010). On composite likelihood estimation of a multivariate Poisson INAR(1) model. *In Proceedings of the 25th International Workshop on Statistical Modelling (IWSM 2010)*.

OPEN-SOURCE
SOFTWARE

X. Pedeli and C. Varin (2018). R-package lacm: Latent Autoregressive Count Models.