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List of Publications:

Books written are prefixed by B, books edited by E, book chapters by C, single author publications by S, joint author publications by J, notes and reviews by R.

Papers:

      Sole author

S1	1978	Methods of discrimination in multivariate binary data. In COMPSTAT 1978, Eds. L.C.A. Corsten and J. Hermans, 155-161. Vienna Physica Verlag, 1978.
S2	1983	Kernel methods for the estimation of discrete distributions. Journal of Statistical Computation and Simulation, 16, 189-200.
S3	1983	Statistics and forensic science - a fruitful partnership. Guest editorial, Journal of the Forensic Science Society, 23, 3-4.
S4	1986	Statistical discriminant analysis in forensic science. Journal of the Forensic Science Society, 26, 237-247.
S5	1991	Population and samples. In E1: The Use of Statistics in Forensic Science (C.G.G. Aitken and D.A. Stoney, Editors), Ellis Horwood, Chichester, 51-82.
S6	1999	Sampling – how big a sample. Journal of Forensic Sciences, 44, 750-760.
S7	2009	Some thoughts at the interface of law and statistics. Law, Probability and Risk, 8, 73-83, doi:10.1093/lpr/mgp019

      Joint author

J1	1976	(with J. Aitchison) Multivariate binary discrimination by the kernel method. Biometrika, 63, 413-420.
J2	1979	(with D.G. MacDonald) An application of discrete kernel methods to forensic odontology. Applied Statistics, 28, 55-61.
J3	1985	(with P.G.G. Darke and M.V. Thrusfield) The association between tail injuries and docking in dogs. The Veterinary Record, 116, 409.
J4	1985	(with P.G.G. Darke and M.V. Thrusfield) Observations on breed and sex in relation to canine heart valve incompetence. Journal of Small Animal Practice, 26, 709-717.
J5	1986	(with J. Robertson) The value of microscopic features in the forensic examination of human head hairs: (i) statistical analysis of questionnaire returns, (ii) analysis of comments contained in questionnaire returns. Journal of Forensic Sciences, 31, 546-573.
J6	1987	(with J. Robertson) A contribution to the discussion of probabilities and human hair comparisons. Journal of Forensic Sciences, 32, 684-689.
J7	1987	(with I.W. Evett and P.E. Cage) Evaluation of the likelihood ratio for fibre transfer evidence in criminal cases. Applied Statistics, 36, 174-180.

J8	1989	(with P.F. Rae, M.V. Thrusfield, A. Higgins, T.W. Jones and A.G. Luckins). Evaluation of enzyme immunoassays in the diagnosis of camel (Camelus dromedarius) trypanosomiasis: a preliminary investigation. Epidemiology and Infection, 102, 297-307.
J9	1989	(with K.P.-S. Chan) Estimation of the Bayes' factor in a forensic science problem. Journal of Statistical Computation and Simulation, 33, 249-264.
J10	1989	(with A. Gammerman) Probabilistic reasoning in evidential assessment. Journal of the Forensic Science Society, 29, 303-316.
J11	1989	(with M.V. Thrusfield and R.H. Muirhead) A field investigation of kennel cough. 1 : Efficacy of vaccination, Journal of Small Animal Practice, 30, 550-560.
J12	1991	(with J. Robertson) Human hairs. In E1: The Use of Statistics in Forensic Science (C.G.G. Aitken and D.A. Stoney, Editors), Ellis Horwood, Chichester, 162-168.
J13	1991	(with M.V. Thrusfield and R.H. Muirhead) A field investigation of kennel cough. 2 : Incubation period and clinical signs. Journal of Small Animal Practice, 32, 215-220.
J14	1991	(with J. Innes and F. Mitchell) Prediction of small company failure. Credit Management, September, 1991, 37-41.
J15	1991	(with M.V. Thrusfield and R.H. Muirhead) A field investigation of kennel cough. 3 : Efficacy of different treatments. Journal of Small Animal Practice, 32, 455-459.
J16	1992	(with M.J. Brewer, Z. Luo, A. Gammerman) Stochastic simulation in mixed graphical models. Computational Statistics, Vol. 1. (Dodge, Y. and Whittaker, J., Eds.) Physica-Verlag, 257-262.
J17	1994	(with A. Gammerman, Z. Luo & M.J. Brewer) Computational systems for mixed graphical models. In UNICOM Adaptive Computing and Information Processing, Seminar Proceedings, 143-163.
J18	1995	(with A. Gammerman, Z. Luo, M.J. Brewer) Exact and approximate algorithms and their implementations in mixed graphical models. In 'Probabilistic reasoning and Bayesian belief networks' (A. Gammerman, Editor) Alfred Waller Ltd., pp33-54.
J19	1995	(with J. Shaw and M. Talbot) Contaminant detection in the visual inspection of seed samples. Applied Statistics, 44, 431-440.
J20	1996	(with M.J. Brewer and M. Talbot) A comparison of hybrid strategies for Gibbs sampling in mixed graphical association models. Computational Statistics and Data Analysis, 21, 343-365.
J21	1996	(with A. Gammerman, G. Zhang, T. Connolly, D. Bailey, R. Gordon, and R. Oldfield) Bayesian belief networks with an application in specific case analysis. In Computational Learning and Probabilistic Reasoning (A. Gammerman, Editor), John Wiley & Sons Ltd., pp.169-184. (M).
J22	1996	(with J. Bring) 'U.S. v Shonubi' and the use of statistics in courts. Expert Evidence, 4, 134-142. (E).
J23	1996	(with T. Connolly, A. Gammerman., G. Zhang, D. Bailey, R. Gordon,

and R. Oldfield) Statistical modelling in specific case analysis. Science and Justice. 36, 245-255. (M). *(1996 winner of the P.W. Allen award of the Forensic Science Society.)*

J24	1997	(with J. Bring, T. Leonard and O. Papasouliotis) Estimation of quantities of drugs handled and the burden of proof. Journal of the Royal Statistical Society, Series A, 160 , 333-350. (M)
J25	1997	(with F. Taroni) Forensic science at trial. Jurimetrics, 37, 327-337.
J26	1997	(with J. Bring) Burden of proof and estimation of drug quantities under the Federal Sentencing Guidelines, Cardozo Law Review. 18, 1987-1999.
J27	1998	(with F. Taroni) Probabilitès et preuve par l' AND dans les affaires civiles et criminelles. Questions de la cour et rèsponses fallacieuses des experts. Revue Pènale Suisse, 116, 291-313.
J28	1998	(with F. Taroni) Probabilistic reasoning in the law, part 1: assessment of probabilities and explanation of the value of DNA evidence. Science and Justice, 38, 165-177. (E)
J29	1998	(with F. Taroni) Probabilistic reasoning in the law, part 2: assessment of probabilities and explanation of the value of trace evidence other than DNA. Science and Justice, 38, 179-188. (E)
J30	1999	(with F.Taroni) The likelihood approach to compare populations: a study on DNA evidence and pitfalls of intuitions. Science and Justice, 39, 213 - 222.
J31	2000	(with F.Taroni) DNA evidence, probabilistic evaluation and collaborative tests. Forensic Science International, 108, 121-143.
J32	2000	(with F. Taroni) Fibers evidence, probabilistic evaluation and collaborative tests. Forensic Science International, 114, 45-47.
J33	2001	(with F. Taroni and P. Garbolino) De Finetti's subjectivism, the assessment of probabilities and the evaluation of evidence: a commentary for forensic scientists. Science and Justice, 41, 145-150. (E)
J34	2002	(with D. Lucy) Estimation of the quantity of a drug in a consignment from measurements on a sample. Journal of Forensic Sciences, 47, 968-975. (M)
J35	2002	(with D. Lucy) The role of roster data and evidence of attendance in cases of suspected excess deaths in a medical context. Law, Probability and Risk, 1, 141-160.
J36	2003	(with W.C. Thompson and F. Taroni) How the probability of a false positive affects the value of DNA evidence. Journal of Forensic Sciences, 48, 47-54.
J37	2003	(with F. Taroni and P. Garbolino) A graphical model for the evaluation of cross-transfer evidence in DNA profiles. Theoretical Population Biology, 63, 179-190. (M)
J38	2004	(with F. Taroni, A. Biedermann, and P. Garbolino) A general approach to Bayesian networks for the interpretation of evidence. Forensic Science International, 139, 5-16.

J39 2004 (with D. Lucy) Evaluation of trace evidence in the form of multivariate data. Applied Statistics, 53, 109-122; with corrigendum 665-666. (M)

J40 2005 (with F. Taroni and S. Bozza) Decision analysis in forensic science. Journal of Forensic Sciences, 50, 894-905.

J41 2006 (with D. Lucy, G. Zadora and J.M. Curran) Evaluation of trace evidence for three-level multivariate data with the use of graphical models, Computational Statistics and Data Analysis, 50, 2571-2588. (M) doi:10.1016/j.csda.2005.04.005

J42 2006 (with Shen,Q., Keppens,J., Schafer,B. and Lee,M.) A scenario-driven decision support system for serious crime investigation. Law, Probability and Risk, 5, 87-117. (doi:10.1093/lpr/mgl014)

J43 2007 (with G. Zadora and D. Lucy) A two-level model for evidence evaluation. Journal of Forensic Sciences, 52, 412-419. (M) 10.1111/j.1556-4029.2006.00358.x

J44 2007 (with Shen,Q., Jensen,R. and Hayes, B.) The evaluation of evidence for exponentially distributed data. Computational Statistics and Data Analysis, 51 (12), 5682-5693. (doi:10.1016/j.csda.2007.05.026)

J45 2007 Information-theoretical comparison of likelihood ratio methods of forensic evidence evaluation
Ramos, Daniel; Gonzalez-Rodriguez, Joaquin; Zadora, Grzegorz; Zieba-Palus, Janina; Aitken, Colin;
Information Assurance and Security, 2007. IAS 2007. Third International Symposium on
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J46 2008 (with Taroni,F.) Fundamentals of statistical evidence – a primer for legal professionals. *International Journal of Evidence and Proof,* 12, 181-207, doi:1350/ijep.2008.12.3.296.

J47 2008 (with Biedermann,A., Taroni,F., and Bozza,S.) Analysis of sampling issues using Bayesian networks. *Law, Probability and Risk,* 7, 35-60, doi: 10.1093/lpr/mgm041.

J48 2009 (with Mavridis,D.) Sample size determination for categorical responses. *Journal of Forensic Sciences.* 54,135-151 doi: 10.1111/j.1556-4029.2008.00920.x

J49 2010 (with Zadora,G. and Neocleous,T) A two-level model for evidence evaluation in the presence of zeros. Journal of Forensic Sciences, 55, 371-384, doi: 10:1111/j.1556-4029.2009.01316.x

J50 2010 (with Roberts, P. and Jackson, G.) Fundamentals of probability and statistical evidence in criminal proceedings. Royal Statistical Society, http://www.rss.org.uk/statsandlaw (M)

J51 2011 (with Neocleous,T and Zadora,G.) Transformations for compositional data with zeros with an application to forensic evidence evaluation. *Chemometrics and Intelligent Laboratory Systems,* 109, 77-85, doi:10.1016/j.chemolab.2011.08.003

J52 2011 (with Redmayne,M., Roberts,P. and Jackson,G. Forensic science evidence in question. *Criminal Law Review,* issue 5, 347-356.

J53 2012 (with Puch-Solis, Roberts,P., Pope,S.) Assessing the probative value of

DNA evidence. Royal Statistical Society,
http://www.rss.org.uk/statsandlaw

J54	2013	(with Ramos,D., Gonzalez-Rodriquez,J.,Zadora,G.) Information-theoretical assessment of the performance of likelihood ratio computation methods. *Journal of Forensic Sciences,* 58, 1503-1518. DOI: 10.1111/1556-4029.12233.
J55	2013	(with Biedermann,A., Hicks,T., Voisard,R., Taroni,F., Champod,C. and Evett,I.W.) E-learning initiatives in forensic interpretation: report on experiences from current projects and outlook. *Forensic Science International.* 230, 2-7 (Author 6 of 7)
J56	2013	(with Erica Gold) Evidence evaluation for discrete data. *Forensic Science International* 230, 147-155.
J57	2013	Wilson,A., Aitken,C.G.G., Sleeman,R. and Carter,J. The evaluation of evidence relating to traces of cocaine on banknotes *Forensic Science International* in press
J58	2013	Roberts,P. and Aitken,C.G.G. The Logic of Forensic Proof: inferential reasoning in criminal evidence and forensic science. The Royal Statistical Society. Preprint available from http://www.maths.ed.ac.uk/~cgga
J59	2013	Jackson,G., Aitken,C.G.G. and Roberts,P. Case assessment and interpretation of expert evidence. The Royal Statistical Society. Preprint available from http://www.maths.ed.ac.uk/~cgga

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R1	1985	(with M.V. Thrusfield) An introduction to veterinary observational studies. Society for Veterinary Epidemiology and Preventive Medicine, 35pp.
R2	1988	(with M. Talbot, A. Gammerman and C. Helgesen) A strategy for the development of a statistical expert system toolkit. COMPSTAT 88 (Short communications and posters) (D. Edwards and N.E. Raun, Eds.) Physica Verlag, Heidelberg, 75.
R3	1989	(with M. Talbot and A. Gammerman) Development of expert system tools for routine data monitoring. Eurostat News (Special Edition) Proceedings of Seminar 'Development of Statistical Expert Systems' Luxembourg, 1987, 160-167.
R4	1991	The First International Conference on Forensic Statistics - A report (Edited by CGGA with an Introduction by CGGA) Journal of the Royal Statistical Society, Series A, 154, 45-130. (Introduction: 45-48.)
R5	1992	Seconding of Vote of Thanks to: Berry, D.A., Evett, I.W. and Pinchin, R. Statistical inference in crime investigations using deoxyribonucleic acid profiling. Applied Statistics 41, 522-523.
R6	1992	(with M. Talbot, J. Calzadilla, D. Conniffe, F. Eicker, A. Gammerman, A. Unwin and G. Wright) Linking informal knowledge and expertise to forecasting models. Proceedings of 'New techniques and technologies for statistics', Bonn. Eurostat, 88-94.
R7	1993	Statistics and the Law : report of a discussion session at The Royal

Statistical Society Conference, Sheffield, September 1992. Journal of the Royal Statistical Society, Series A, 156, 301-304.

R8	1994	Evaluating evidence for identification. Southern California Inter-disciplinary Law Journal 4, 49-66.
R9	1995	Proposing a Vote of Thanks to Balding, D. and Donnelly, P. Inference in forensic identification. Journal of the Royal Statistical Society, Series A, 158, 40-41.
R10	1995	(with T. Connolly, A. Gammerman, G. Zhang, R. Oldfield) Research report: Predicting an offender's characteristics : an evaluation of statistical modelling. Home Office Police Research Group, Special Interest Series. 51 pp. (M)
R11	1996	Lies, damned lies and expert witnesses. Mathematics Today. 32, 76-80.
R12	1996	(with F. Taroni) Interpretation of scientific evidence (Refereed letter to Editor), Science and Justice, 36, 290-292.
R13	1997	The Third International Conference on Forensic Statistics - a report. (Edited by CGGA with an Introduction by CGGA.) Journal of the Royal Statistical Society, Series A, 160, 271-357 (Introduction: 271-273).
R14	1998	Statistics and forensic medicine. Invited contribution to Encyclopaedia of Biostatistics (P. Armitage,P and T. Colton, Editors), Volume 2, 1555-1557, John Wiley & Sons Ltd., Chichester.
R15	1998	(with F. Taroni) A verbal scale for the interpretation of evidence (Refereed letter to Editor), Science and Justice, 38, 279-281. (M)
R16	2000	Statistical interpretation of evidence: Bayesian analysis. Encyclopaedia of Forensic Sciences (Siegel,J., Editor-in-Chief), Academic Press. Volume 2, pp 717-724.
R17	2003	Conviction by probability? New Law Journal, 153, number 7090, 1153 − 1154 (Invited article)
R18	2003	The evaluation of evidence (transcript of plenary lecture). Australian Journal of Forensic Sciences, 35, 105-114.
R19	2006	Forensic Science, Statistics. In *Encyclopaedia of Statistical Sciences*, John Wiley & Sons Ltd., pp. 2439 – 2445.
R20	2006	Amicus Brief: People v. Michael Johnson No. S144821 (Fifth Appellate District, No. F046939). One of 25 signatories, including Sir Alec Jefferies.
R21	2006	Preface to Proceedsings of One Day One Topic Seminar 'Evidence and Statistics' , Krakow, Poland, November 27th 2004. *Problems in forensic sciences,* LXV, 49-50 (Polish: 51-52).
R22	2006	Statistics in forensic science. Part I. An aid to investigation. *Problems in forensic sciences,* LXV, 53-61. (Polish: 62-67)
R23	2006	Statistics in forensic science. Part II. An aid to the evaluation of evidence. *Problems in forensic sciences,* LXV, 68-75 (Polish: 76-81) .
R24	2006	(with Biedermann,A. and Taroni,F.) Conclusion scale for shoeprint and toolmarks examination. *Journal of Forensic Identification* 56, 685-689.

R25	2009	Some thoughts on the role of probabilistic reasoning in the evaluation of evidence. In *Criminal and environmental soil forensics* (Ritz,K., Dawson,L., Miller,D. (Editors) Springer, pp. 33-47.
R26	2009	Statistics and Forensic Science. In *Handbook of Forensic Science.* (Fraser,J. and Williams,R. (Editors) Willan Publishing Ltd. , UK, pp. 381 – 418.
R27	2009	Interpreting expert opinions, History of. In *Wiley Encyclopaedia of Forensic Science*. Jamieson,A. and Moenssens,A. (Editors) John Wiley and Sons Ltd., Chichester, UK, pp1579-1586.
R28	2009	Sampling and estimation of quantities. In *Wiley Encyclopaedia of Forensic Science.* Jamieson,A. and Moenssens,A. (Editors) John Wiley and Sons Ltd., Chichester, UK, pp. 2281-2291.
R29	2010	Use and abuse of statistics. The Magistrate Magazine, May.
R30	2011	(Roberts,P.., Jackson,G. and Redmayne,M. When the numbers count – part 2. Criminal law and Justice Weekly, 175, 319.

Books:

B1	1995 (reprinted 1997)	Statistics and the Evaluation of Evidence for Forensic Scientists. John Wiley & Sons Ltd., 260 pp. (very widely cited.)
B2	2004 (July 17th)	Statistics and the Evaluation of Evidence for Forensic Scientists. (2nd edition) John Wiley & Sons Ltd.,530 pp. (with F. Taroni as second author) (very widely cited.)
B3	2006 (Feb. 17th)	Bayesian networks and probabilistic inference in forensic science. John Wiley & Sons Ltd, 354 pp. (second author; first author F. Taroni, and P. Garbolino (3rd) and A. Biedermann (4th)).
B4	2010 (April)	Data analysis in forensic science: a Bayesian decision perspective, John Wiley & Sons Ltd, about 300 pp. (fifth author, other authors are F. Taroni(1st), S.Bozza(2nd), P. Garbolino(3rd), A. Biedermann(4th)).
B5	2014	Evidential value of multivariate physicochemical data. John Wiley and Sons Ltd. (320pp) (fourth author: other authors are G. Zadora (1st), A. Martyna (2nd), D. Ramos (3rd)).
B6	2014	Bayesian networks and probabilistic inference in forensic science. John Wiley and Sons Ltd, (2nd edition, about 500 pp) (fifth author: other authors are F. Taroni(1st), A. Biedermann(2nd) , S.Bozza(3rd), P. Garbolino(4th) (*manuscript to be with Wiley, December 31st 2013.*)
E1	1991*	(Edited jointly with D.A. Stoney, myself as Principal Editor.) The Use of Statistics in Forensic Science, Ellis Horwood, Chichester, 240 pp. (Includes two contributions by CGGA, one as sole author (S6), one as joint author (J12)).

Book chapters:

C1	1996	Bayesian belief networks with an application in specific case analysis. (with A. Gammerman, G. Zhang, T. Connolly, D. Bailey, R. Gordon, R.

Oldfield) In 'Computational Learning and Probabilistic Reasoning'. (A. Gammerman, Editor). John Wiley & Sons Ltd., pp 169-184.

C2	2000	Sample size determination and evidence interpretation. In 'Statistical Science in the Courtroom' (J. Gastwirth, Editor). Springer-Verlag pp.1-24.
C3	2002	Statistical techniques and their role in evidence interpretation. In 'Forensic Medicine: Clinical and Pathological Aspects' (J. Payne-James, and A. Busuttil, Editors) Greenwich Medical Media Ltd., pp. 755-776.

Amici Brief   (joint signatory with many others)

2006   Re: People v. Michael Johnson, California Supreme Court, No. S144821.

2007   Re: People v. Dennis Louis Nelson, California Supreme Court No. S147051