



RSS Honours and Award Winner Citations 2024

Barnett Award: David Borchers

The Barnett Award is awarded to David Borchers for his numerous contributions to the development of methodology in statistical ecology. Focusing on developing novel statistical methods to address time-critical ecological data challenges, he has been instrumental in the development of the sound theoretical basis for spatial capture recapture as well as its application, distribution and impact. He founded the field of mark-recapture distance sampling, which has been used by thousands of practitioners in wildlife monitoring and conservation and unified many observation models for detecting and counting animals.

David has been very successful at making methodology accessible to the ecological community, encompassing non-academics, field practitioners and conservation managers alike. He has supported and trained a significant number of potential future leaders in the field, from undergraduate through to senior research staff.

West Medal: Esta Clark

The West Medal is awarded to Esta Clark for her outstanding work in both developing and communicating important public statistics during a time of immense public scrutiny and time pressure. Her innovative statistical work, using administrative data and statistical methods, ensured the population statistics gleaned from the Scottish Census could be used with confidence. Esta demonstrated leadership in this work and engaged productively with the users of the statistics. The impact of her statistical leadership has helped ensure that these important public statistics could be used immediately for the public good.

Greenfield Medal: Shirley Coleman

The Greenfield Industrial Medal is awarded to Shirley Coleman for her dedicated work in championing the application of statistical methods in industrial processes. As technical director of NU Solve, formerly known as the Industrial Statistics Research Unit at Newcastle University, Shirley has played a fundamental role in delivering impactful statistical solutions to a range of industrial sectors. Examples of her work include projects that have led to the systemic improvement of accounting of gas in the national transmission system provided by National Grid and a suite of projects that have delivered significant impacts for SMEs across the marine, utilities, automotive, social housing and service sectors.

Shirley has provided substantial service to the discipline through her sustained and numerous contributions to the RSS and the European Network for Business and Industrial Statistics.

Guy Medal Gold: Peter Diggle

The Guy Medal in Gold is awarded to Peter Diggle for his many contributions to the discipline of statistics and in particular its use in solving challenging problems in the domains of the biomedical, health and environmental sciences. Peter has contributed both groundbreaking methodological work in spatial and longitudinal statistics as well as impactful applied work over a sustained period of close to fifty years. He has read seven papers to the Society on topics as diverse as simulation-based inference, informative dropout, spectral analysis of time series,

model-based geo-statistics and likelihood-based methods for non-normal continuous repeated measures data.

Peter has been a long-standing servant to the Society as president from 2014–2016, a member of Council, a Series B joint editor and an honorary secretary among many other roles. He has also had a huge impact on growing the statistical community, having mentored over 50 doctoral and post-doctoral researchers.

David Cox Research Prize: Daniel García Rasines

The David Cox Research Prize is awarded to Daniel García Rasines for his pioneering work on selective inference. In particular, his creation of a novel proposal for information splitting that has had significant impacts on the study of post-selection inference. The splitting technique is based on a clever randomisation which provides valid post-selection inference for arbitrary selection rules. More generally, the technique provides new perspectives on selective inference by drawing on fundamental aspects of the Fisherian paradigm.

Chambers Medal: Rachel Hilliam and John MacInnes

The Chambers Medal, which recognises outstanding service to the Society, is awarded jointly to Rachel Hilliam and John MacInnes. Both Rachel and John are recent RSS vice presidents for professional affairs, with John holding the position between 2019 and 2020, also serving as a member of the Professional Affairs Committee (PAC) from 2016 until 2020. Rachel held the position of VP for three years between 2021 and 2023, serving on PAC since 2019 and stepping down in 2023.

Their tenure saw substantial change within RSS professional affairs, including overseeing the review and launch of new standards for Graduate Statistician (GradStat), the introduction of a competency framework and a competency application route for GradStat, the introduction of new accreditation standards and the new RSS Quality Mark, changes to the Charter and Bylaws, the introduction of a new entry-level award, Data Analyst, and, not least, they both played a vital role in the creation of the Alliance for Data Science Professionals.

With Rachel serving as the first chair of the Alliance until the end of 2023, she and John helped oversee an industry first for the sector. Launching the UK's first set of standards for data science in July 2022, these were recognised by four of the leading learned societies representing computing, mathematics, operational research and statistics. This, together with the launch of two new professional certifications, the Data Science Professional and the Advanced Data Science Professional, has ensured that the RSS and the statistics profession are rightfully helping shape the profession of data science.

Wood Medal: Vahé Nafilyann

The Wood Medal is awarded to Vahé Nafilyan for his excellent contribution to social statistics. His outstanding work in developing the use of large-scale linked data has improved understandings of the link between health and social factors. This groundbreaking work has had important practical advantages with widespread impact. The panel was particularly impressed by Vahé's rapid response that informed public understanding of the risk factors for dying from Covid-19 during the pandemic. This work has far ranging benefits today as well as great potential to inform future research and development.

Guy Medal Bronze: Chris Oates

The Guy Medal in Bronze is awarded to Chris Oates for his outstanding contributions to computational statistics, particularly his work on the use of Stein kernels to address significant open challenges in Bayesian computation. His research has led to substantial improvements in the efficiencies of Bayesian Monte Carlo methods, which has had a significant impact on methodological and applied work in statistics and machine learning. This research has appeared in three papers in the *RSS Series B* journal: 'Control functionals for Monte Carlo integration' (with Girolami and Chopin) published in 2017; 'Optimal thinning of MCMC output' (with Riabiz, Chen, Cockayne, Switch, Niederer and Mackey) in 2022; and 'Robust generalised Bayesian inference for intractable likelihoods' (with Matsubara, Knoblauch and Briol), also published in 2022.

Bradford Hill Medal: Mahesh (Max) Parmar

The Bradford Hill Medal is awarded to Mahesh (Max) Parmar. The award recognises Max's work on efficient designs for late-phase clinical trials, which include fundamental statistical development, practical implementation and evaluation in a series of trials in cancer and other areas. He has collaborated with clinicians to design, conduct and analyse a wide range of high quality and clinically influential cancer trials, which have changed practice through incorporation in multiple clinical guidelines worldwide. This includes the STAMPEDE platform protocol, whose multi-arm multistage design has delivered defining results multiple times since it was implemented 15 years ago in relation to prostate cancer.

Max has made major contributions to the design of multi-arm clinical trials, including extensions for different types of stopping rule. He has also made important contributions to the effective meta-analysis of clinical trials using both aggregate data and individual participant data. He has directed the MRC Clinical Trials Unit at UCL since 2010 where he has led and inspired methodological innovation.

Howard Medal: Fiona Steele

The Howard Medal is awarded to Fiona Steele for her outstanding contribution to the field of social statistics, in particular the development of methods for the analysis of panel data, the use and extension of event history models, multilevel and multistate models as well competing risk and survival models within the longitudinal framework.

Many modern developments in social statistics have been directly influenced by her work. Her many major contributions in the context of longitudinal studies, including the British birth cohort studies and the UK Household Longitudinal Study, have led to statistically sound methodology to keep track of, eg, the UK populations and subpopulations in health, social mobility educational development, fertility, and many key sub areas.

Fiona can be considered as a leading international researcher in her field, as reflected by the various honours she has received in social science. She manifests the continuing importance of social statistics within the RSS orbit.

Guy Medal Silver: Jonathan Tawn

The Guy Medal in Silver is awarded to Jonathan Tawn for his numerous pioneering contributions to the statistics of extremes and their profound influence on science and society. To date, he has read three papers to the Society, including 'Statistical methods for multivariate extremes:

an application to structural design' (with SG Coles) published in 1994, 'Model-based geostatistics' (with PJ Diggle and RA Moyeed) published in 2002 and 'A conditional approach for multivariate extreme values' (with JE Heffernan) published in 2004. These papers are highlights of a stellar publication career in which he has led in shaping his area of study through methodological innovation inspired by the requirements of real-world application.

Jonathan's impact on the area has been further achieved through an exceptional commitment to the training of young researchers, latterly through his directorship of the hugely successful EPSRC-funded STOR-i Centre for Doctoral Training at Lancaster University.