



2016 IAA Awards

19 April, 2016

Outstanding Contributions to Astrostatistics Award

Joseph M. Hilbe



Joseph Hilbe is the founder and President of the International Astrostatistics Association (IAA), and founded the first astrostatistics interest group and committee under the auspices of an astronomical or statistical organization. Prof. Hilbe is an emeritus professor with the University of Hawaii, an adjunct professor of statistics at Arizona State University, and solar system ambassador with the Jet Propulsion Laboratory. He has authored 18 books in statistical modeling, including very well cited books on count and binomial models from both the frequentist and Bayesian traditions. His book, *Modeling Count Data* won the Association of American Publishers 2015 PROSE honorable mention award for books on mathematics. He has authored a number of statistical procedures and functions for commercial statistical software as well as in R, many of which have direct applications to astrophysical research. Prof. Hilbe is an elected Fellow of the American Statistical Association, an elected member of the International Statistical Institute, for which he has chaired the committee on astrostatistics from 2009, is a full member of the American Astronomical Society, is editor-in-chief of the Springer Series on Astrostatistics, and founding co-editor of the Astrostatistics & Astroinformatics Portal (ASAIP).

Eric D. Feigelson



Eric Feigelson is a Distinguished Senior Scholar and Professor in the Department of Astronomy and Astrophysics and the Department of Statistics at Pennsylvania State University. He is also the first President of the IAU Commission on Astroinformatics and Astrostatistics, taking office at the 2015 IAU General Assembly in Honolulu. Prof. Feigelson is also associate director of the Pennsylvania State University Center for Astrostatistics, and co-founder of the “Statistical Challenges in Modern Astronomy” conferences, which have been held each five years since 1991. Co-author of *Astrostatistics*, the first text specifically devoted to Astrostatistics, Prof Feigelson is also lead co-author of *Modern Statistical Methods for Astronomy with R Applications* (2012), which won the Association of American Publishers 2013 PROSE award for books on Cosmology and Astronomy. Prof. Feigelson is on the founding Council of the IAA and is founding co-editor of the Astrostatistics & Astroinformatics Portal (ASAIP). He conducts workshops on astrostatistics worldwide, and is the Scientific Editor for the *Astrophysical Journal*, specializing in X-ray astronomy, star and planet formation, exoplanets, and statistical methodology.

G. Jogesh Babu



G. Jogesh Babu is professor of statistics and of astronomy & astrophysics at Pennsylvania State University. He is also Director of the Pennsylvania State University Center for Astrostatistics, and co-founder of the “Statistical Challenges in Modern Astronomy” conferences, which have been quint-annually held since 1991. Co-author with Feigelson of *Astrostatistics*, the first text specifically devoted to Astrostatistics, Prof. Babu is also co-author of *Modern Statistical Methods for Astronomy with R Applications* (2012), which won the Association of American Publishers 2013 PROSE award for books on Cosmology and Astronomy. Prof. Babu is on the founding Council of the IAA and is IAA Vice President – Statistics, a position he has held since the founding of the IAA. In addition, Prof. Babu is a fellow of the American Association for the Advancement of Science, of the Institute of Mathematical Statistics, and of the American Statistical Association. He is an elected member of the International Statistical Institute, and is editor-in-chief of the journal *Statistical Methodology*. Prof. Babu is also a Core Team Member of the “Informatics and Statistics Science Collaboration” of the forthcoming Large Synoptic Survey telescope.

Fionn Murtagh



Fionn Murtagh is professor of Data Science and Statistics at the University of Derby in the UK, and serves part-time as a professor of data science at Goldsmiths, University of London. Prof. Murtagh is on the organizing committee of the initial IAU Commission B3 Astroinformatics and Astrostatistics (2015-2018) and is past president of the Classification Society (2008-2009) and past president of the British Classification Society (2007-2010). He is currently on the Council of the International Association for Statistical Computing and is editor-in-chief of the *Computer Journal*, the foremost publication of the British Computer Society. Prof. Murtagh is an elected member of both the Royal Irish Academy and Academia Europaea, and is a fellow of the British Computer Society and fellow of the International Association for Pattern Recognition. He is co-author with Jean-Luc Starck of two editions of the well-received book, *Astronomical Image and Data Analysis* (2006, Springer). Aside from Prof. Murtagh's work in classification, he was also an associate professor at the University of Ulster's Astronomical Observatory and for twelve years (1984-1996) was a senior scientist with the European Space Agency, working on the Hubble Space Telescope project.

IAA Fellows

Stefano Andreon

INAF-Astronomical Observatory of Brera

For his service to the International Astrostatistics Association as its initial membership chair and serving on the initial IAA Council; for his outstanding contributions to the astrostatistics literature, and for his dedication in fostering the statistical education of future astronomers.



G. Jogesh Babu

Pennsylvania State University

For his service to the International Astrostatistics Association as its initial vice president for statistics; for his long time contributions to the advancement of astrostatistics; for his efforts in co-authoring the founding texts on the subject, and for organizing continuing conferences and workshops on astrostatistics for the past quarter century.



Asis K. Chattopadhyay

Calcutta University, Kolkata

For his continued service to astrostatistics as an initial Council member of the International Astrostatistics Association; for his long time promotion of astrostatistics throughout India, and for his efforts in astrostatistics education through directing workshops and conferences.



Kirk D. Borne

Booz Allen Hamilton, Strategic Innovation Group

For his service to the International Astrostatistics Association as its initial Vice President for Astroinformatics and member of its initial Council; for his tireless work in advancing astroinformatics throughout the world, and for his near two decades of work as a research scientist dealing with “big data” concerns.



Eric D. Feigelson

Pennsylvania State University

For his tireless many years of commitment to the advance of astrostatistics and for his efforts in having the IAU recognize a new Commission B3 on Astroinformatics and Astrostatistics, with him as its first President; for his service to the International Astrostatistics Association as a founding Council member, and for initiating the Astrostatistics & Astroinformatics Portal.



Alan J. Heavens

Imperial College, London

For his contributions to astrostatistics as a member of the Organizing Committee of the IAU B3 Commission on Astroinformatics and Astrostatistics; for his tireless work on co-chairing the scientific organizing committees for the COSMO21 conferences, and for his long time support for the advancement of astrostatistics.



Joseph M. Hilbe

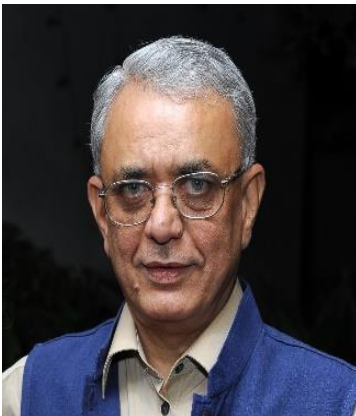
Arizona State University

For his efforts in founding the International Astrostatistics Association and serving as its initial President; for his work in promoting astrostatistics throughout the global astronomical and statistical communities; and for his efforts in bringing new statistical methods into astrophysical research.



Ajit K. Kembhavi Inter University Center for Astronomy & Astrophysics (IUCAA)

For his contributions to astrostatistics and astronomy as Vice-President of the IAU executive committee; for his previous service to astroinformatics as a member of the organizing committee of the IAU Commission 5 on Documentation and Astronomical Data; for his contributions to promoting astroinformatics in India and beyond, and for developing ASTROSTAT under VO India, a statistical package for online data analysis.



Jean-Luc Starck Institute of Research into the Fundamental Laws of the Universe,
Service d'Astrophysique, CEA-Saclay

For his contributions to the International Astrostatistics Association as the initial Vice President for astrophysics; for his efforts as the scientific organizing committee co-chair of the COSMO21 conferences; for his substantial efforts in promoting the advancement of astrostatistics, and for his contributions to the astrostatistics and astroinformatics literature.



Roberto Trotta Imperial College, London

For his contributions to the International Astrostatistics Association as a member of its founding Council; for his efforts to bring astronomy and an understanding of data to the general public, and for his efforts in advancing the statistical education among astronomers.



David A. van Dyk

Imperial College, London

For his long time commitment to the advance of astrostatistics; for his contributions to the International Astrostatistics Association as an initial member of its Council; for his lead in the CHASC astrostatistics collaboration, and for his efforts to bring astrostatistics to the statistical community through the promotion of invited and special theme sessions.



Yanxia Zhang

Chinese National Astronomical Observatory

For her contributions to astrostatistics as a member of the Organizing Committee of the IAU B3 Commission on Astroinformatics and Astrostatistics; for her efforts in promoting astrostatistics within China, and for representing Chinese astrostatistics at the major statistical and astronomical conventions throughout the world.



Publication Awards

Outstanding Publication in Astrostatistics Award (2)

Asis K. Chattopadhyay, Calcutta University and Tanuka Chattopadhyay, Calcutta University

for

Chattopadhyay A. & Chattopadhyay, T. (2014), *Statistical Methods for Astronomical Data Analysis*, Springer



Asis K. Chattopadhyay



Tanuka Chattopadhyay

Zeljko Ivezić, University of Washington
Andrew J. Connolly University of Washington
Jacob T. vanderPlas University of Washington
Alexander Gray Carnegie Mellon University

for

Zeljko, Z., Connolly, A.J., Vanderplas, J.T., Gray, A. (2014), *Statistics, Data Mining and Machine Learning in Astronomy*, Princeton University Press



Zeljko Ivezić



Andrew J. Connolly



Jacob T. vanderPlas



Alexander Gray

Outstanding Publication in Astrostatistics PostDoc Award (3)

Rafael S. de Souza, Eötvös University, Hungary

Ewan Cameron, Univ of Oxford, UK

Emille E. O. Ishida, Max-Planck-Institut für Astrophysik, Garching, Germany

Now at: Blaise Pascal University in Clermont-Ferrand, France

Ana L. Chies-Santos, University of Nottingham, UK

Now at: Federal University of the Rio Grande do Sul, Porto Alegre, Brazil

Madhura Killedar, Universitäts-Sternwarte München, Germany

Now at Burnet Institute Medical Research, Melbourne, Australia

for

de Souza, R.S., Hilbe, J.M., Buelens, B., Riggs, J.D., Cameron, E., Ishida, E.E.O., Chies-Santos, A. L., Killedar, M., “The Overlooked Potential of Generalized Linear Models in Astronomy III: Bayesian, Negative Binomial Regression and Globular Cluster Populations”, *Monthly Notices of the Royal Astronomical Society*, 453, 2, 1928-1940, (2015)



Rafael S. de Souza



Ewan Cameron



Emille E. O. Ishida



Ana L. Chies Santos



Madhura Killedar

Darlo Colombo , Department of Physics, University of Alberta, Canada

Now at: Max Planck Institute for Radio Astronomy, Bonn, Germany

for

Colombo, D.; Rosolowsky, E.; Ginsburg, A.; Duarte-Cabral, A.; Hughes, A., “Graph-based interpretation of the molecular interstellar medium segmentation”, *Monthly Notices of the Royal Astronomical Society*, Volume 454, Issue 2:2067-2091 (2015)



Darlo Columbo

Stefano Cavuoti, INAF – OACN, University of Naples Federico II

for

Cavuoti, S. (2015), *DataRich Astronomy: Mining Synoptic Sky Surveys*, Lambert Academic Publishing.



Stefano Cavuoti

Outstanding Publication in Astrostatistics Student Award (1)

Tuli De, University of Calcutta. PhD student at Univ. of Calcutta

for

De, T., Chattopadhyay, T. and Chattopadhyay, A.K., “Use of cross correlation function to study formation mechanism of massive elliptical galaxies”, *Publications of the Astronomical Society of Australia (PASA)*, 2014, 31-47



Tuli De