



ISI Karl Pearson Prize for 2015

The winner of the 2015 Karl Pearson Prize is the paper “Longitudinal data analysis using generalized linear models” by Kung-Yee Liang and Scott Zeger published in *Biometrika* (1986). The authors will present the Pearson Lecture at the WSC in Rio de Janeiro in July 2015.



The Karl Pearson Prize was established in 2013 in collaboration with Elsevier Publishers to recognize a contemporary research contribution that has had a profound influence in statistical theory, methodology, practice or applications. The contribution is a research article or book published within the last three decades. The prize is given biennially at the ISI World Statistics Congress (WSC). It comprises a cash prize of 5,000 euros and travelling expenses to the WSC for the winner to present the Karl Pearson Lecture.

The citation for the winning contribution reads:

“The paper “Longitudinal data analysis using generalized linear models” by Kung-Yee Liang and Scott Zeger had an immediate and sustained impact on both theory and methodology in statistics and biostatistics, as well as on applications in medical, physical and social sciences. In the early 1980s inference using generalized linear models was enabling regression methods to be quickly adapted to models and data with non-normal responses. At the same time the collection of repeated measurements on the same individual was a prominent feature of work in social sciences, medicine, public health, and other areas of science. Liang and Zeger showed how to adapt the generalized linear models framework to these settings, using methodology they proposed under the name generalized estimating equations (GEE). This methodology is now a staple component of applied statistics courses, of statistical computing packages, and of hundreds upon hundreds of analyses in subject matter fields. The theoretical basis for the approach has been refined, and extended, to encompass a wide range of models with complex dependencies. The paper was included in the 1997 volume of Breakthroughs in Statistics, accompanied by a comprehensive overview by Peter Diggle.”

The 2015 Karl Pearson Prize Committee members were: Nancy Reid (Chair); Irène Gijbels; Iain Johnstone; Wei-Liem Loh; Sylvia Richardson; and Victor Yohai. Nicholas Fisher and Helen MacGillivray were ex officio members. We appreciate the excellent work and support of these members.

Helen MacGillivray, Chair of ISI Awards Committee
Vijay Nair, ISI President