

**Abstracts for Karl Pearson's sesquicentenary
at the Royal Statistical Society
23 March 2007**

Speaker: Eileen Magnello, University College London

Title: Karl Pearson: The making of a statistician in Victorian London

A Renaissance man who was born in Victorian London, Karl Pearson carved out his multi-tiered professional life in the burgeoning metropolis where he lived for seven decades. By the time he became Professor of Mathematics at University College London in 1884, London was full of idealistic young men who were dissatisfied with conventional politics and religion, and were searching for new ways of understanding and changing their society. London not only provided an iconoclastic Pearson with abundant opportunities to distil his ideas and convert the dogmatist, but its academic institutions and lecture halls, from whom he found receptive students and where he met inspirational and supportive colleagues, enabled him to create the modern world view, largely by establishing the discipline of mathematical statistics in the late-nineteenth and early twentieth centuries.

Speaker: Chris Pritchard, McLaren High School, Callandar

Title: Inheriting Galton's Statistics: George Darwin, Edgeworth, and Weldon

For Pearson, the principal legacy of Galton was in helping him focus on developing the mathematical properties of simple correlation, which led him to devise a battery of correlational techniques. Galton's idea of correlation also precipitated Pearson's epistemological shift towards seeing the world in terms of partial causation. But three men may be viewed as having inherited Galton's statistics to an even greater extent. George Darwin flirted with the Galtonian agenda on inheritance in man and actively supported Galton in the development of regression as a purely statistical concept, before turning to the physics of astronomy. Edgeworth emerged from the milieu of the psychophysicists and psychologists to adopt and develop the

Galtonian, normal curve tradition within economics. As a young zoologist, Weldon was much influenced by Galton's *Natural Inheritance*, extending the domain of the normal curve to variation in crustaceans and deriving the first correlation coefficients outside anthropometry. He also struggled with how to model asymmetrical distributions and prompted Pearson to address the same issues, though in an altogether different way.

Speaker: June Barrow Green, Open University

Title: “Anti-aircraft guns all day long: Computing for the Ministry of Munitions”

From January 1917 until March 1918 Pearson and his staff of mathematicians and human computers at the Drapers' Biometric Laboratory worked tirelessly on the computing of ballistic charts, high-angle range tables and fuze-scales for AV Hill of the Anti-Aircraft Experimental Section. Things did not always go smoothly—Pearson did not take kindly to the calculations of his staff being questioned—and Hill sometimes had to work hard to keep the peace. In this talk I shall describe the Biometric Laboratory's contribution to the war effort, setting it into the broader context of the mobilisation of mathematicians in Britain.

Speaker: John Aldrich, University of Southampton

Title: The Enigma of Karl Pearson and Bayesian Inference

Karl Pearson is not usually thought of as a Bayesian. This paper examines the Bayesian element in his work and considers how it is related to the better known non-Bayesian element. The opportunity is taken to review Pearson's ideas on statistical inference as a whole including the source of his ideas and the influence they had.

Speaker: Steve Stigler, University of Chicago

Title: Karl Pearson's Impact upon Statistics

Karl Pearson played an enormous role in the organization and form of statistical research in his day, through his teaching, his establishment of laboratories, and his initiation of a vast publishing programme, including two journals that survive today and so many books, pamphlets, and articles that after his death it took an entire hardbound book to list them. This talk will focus on a selection of his technical contributions that had initially and continue to have a profound impact upon the work of both applied and theoretical statisticians, partly through their inadequately acknowledged influence upon Ronald Fisher. Particular attention will be drawn to two of Pearson's major errors that nonetheless have made a positive and lasting impression upon the statistical world.

Speaker: A.W.F. Edwards, Caius College, Cambridge

Title: How much did Pearson's work influence Fisher's?

Much is known about the influence that Pearson had on Fisher in a general way, starting from Egon Pearson's 1968 publication of their early correspondence, while Fisher's considered opinion of Pearson is known from his rejected entry for the *Dictionary of National Biography* which I published in 1994. Here I shall concentrate on examining Fisher's acknowledged debt to Pearson through his actual references to Pearson's work, paying special attention to mathematical genetics.
