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LAUREATES OF THE JERZY SPŁAWA - NEYMAN MEDAL

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The Congress of Polish Statistics took place in Poznań between 18th and 20th of April, 2012, under the honorary patronage of the President of the Republic of Poland, Mr Bronisław Komorowski. It was held in order to commemorate the one hundredth anniversary of founding of the Polish Statistical Society. The Congress offered an excellent opportunity to present and assess achievements of Polish and foreign statisticians, the development of the Polish statistical thought and the process of establishing institutions of public statistics.

During the Congress the Jerzy Spława-Neyman¹ Medal, awarded by the Chapter of the Polish Statistical Society, was presented to honour the following eminent Professors:

Sir Anthony Atkinson,

Tadeusz Caliński,

Malay Ghosh,

Zdzisław Hellwig,

Jana Jurečková,

Wojciech Krzanowski,

Kazimierz Zając,

Ryszard Zieliński.

A short presentation of laureates of the Jerzy Spława-Neyman Medal is given below.

¹ Biographical entry of Jerzy Spława-Neyman by T. Ledwina in Statistics in Transition-New Series, March 2012.

Sir Anthony Barnes Atkinson, a British economist renowned for his contributions to the economics of inequality and public sector economics, with special interest in income distribution and related issues. The measure of inequality he has proposed (in his groundbreaking paper in the *Journal of Economic Theory* almost 45 years ago) is known as the Atkinson index or Atkinson's class of inequality measures. He is a Fellow of the British Academy and has been President of the Royal Economic Society, of the Econometric Society, of the European Economic Association, and of the International Economic Association; Honorary Member of the American Economic Association and of the American Academy of Arts and Sciences. He was knighted in 2000 for services to economics and is Chevalier de la Legion d'Honneur (2001).

Professor Atkinson studied at Cambridge University where he earned his master's degree in 1966. In the years 1967-1971 he was the Fellow of St. John's College at Cambridge and then the Professor of economics at the University of Essex (1971-1976). Subsequently, he held the post of the Professor of economics at the University College in London (1976-1979) and of the Tooke Professor of Economic Science and Statistics, London School of Economics (1980-1992) serving also as the Chairman of Suntory-Toyota International Centre for Economics and Related Disciplines (1981-1987); of the Professor of economics at Cambridge University and the Fellow in Churchill College (1992-1994). In the following years he acted as the Warden at Nuffield College in Oxford (1994-2005). Over the decades, Sir Anthony Atkinson was invited to serve as a member or chairman of various scientific and government committees, and of international organizations, including the European Union.

Sir Anthony Atkinson is the author and editor of numerous monographs. He also published over 140 papers in renowned economic and statistical periodicals.

- *Poverty in Britain and the Reform of Social Security*, 1969
- *Unequal Shares – Wealth in Britain*, 1972
- *Economics of Inequality*, 1975, 1983
- *The Distribution of Personal Wealth in Britain* (with A. J. Harrison), 1978
- *Lectures on Public Economics* (with J. E. Stiglitz), 1980
- *Social Justice and Public Policy*, 1982
- *Parents and Children* (with A. K. Maynard and C. G. Trinder), 1983
- *Poverty and Social Security*, 1989
- *Empirical Studies of Earnings Mobility* (with F. Bourguignon and C. Morrisson), 1992
- *Economic Transformation in Eastern Europe and the Distribution of Income* (with J. Micklewright), 1992
- *Public Economics in Action*, 1995

- *Income Distribution in OECD Countries* (with L. Rainwater and T. Smeeding), 1995
- *Incomes and the Welfare State*, 1996
- *Poverty in Europe*, 1998
- *The Economic Consequences of Rolling Back the Welfare State*, 1999
- *Social Indicators* (with B. Cantillon, E. Marlier and B. Nolan), 2002.

Professor Tadeusz Caliński started his studies in agriculture in 1948, having completed secondary education in Karol Marcinkowski Grammar School in Poznań. In 1953 he graduated from the Faculty of Agriculture and Forestry of the Higher School of Agriculture in Poznań and obtained a master's degree. He undertook a three-year course of Mathematics at the Faculty of Mathematics, Physics and Chemistry of the Adam Mickiewicz University in Poznań. In 1961 he was conferred a doctor's degree by the Council of the Faculty of Agriculture and Forestry of the Higher School of Agriculture in Poznań, after he had written his doctoral dissertation under the supervision of Professor Stefan Barbacki. He earned his postdoctoral degree in the field of experimental agricultural science and biometrics in 1966 on the basis of the habilitation thesis published in the Journal of the Royal Statistical Society.

In the years 1953-1988 he worked at the Mathematical Statistics Section of the Higher School of Agriculture in Poznań (the name was changed into the Agricultural University in 1972), and for almost two decades (1968-1984) he held the Chair of the Section. In 1988 Professor Caliński retired; currently he holds the post of Professor Emeritus of the University of Natural Sciences in Poznań.

In 1998 he was conferred the title of Honoris Causa Doctor of the August Cieszkowski Agricultural University in Poznań, and in 2007 the Honoris Causa Doctor of Warsaw University of Life Sciences in Warsaw.

The list of achievements of Professor Tadeusz Caliński is long, comprising, among others, such activities as:

- Founding the school of mathematical statistics and biometrics that became well-known in the country and abroad,
- Acting as a supervisor of 24 doctors, out of whom 11 subsequently became Professors,
- Publishing papers in renowned Polish and foreign periodicals, as well as 2 books published by the leading scientific publishing house Springer Verlag, New York,
- Promoting the idea of mathematical statistics and biometrics among mathematicians by setting up and heading the Commission of Mathematical Statistics, a body within the Committee of Mathematical Sciences of the Polish Academy of Science,
- Promoting statistical and biometric methods among students and academics from different fields of science through lectures and consultations,

- Initiating and actively supporting international cooperation between Polish statisticians and their colleagues from different parts of the world, especially from: Holland, France, Italy, Britain, Germany, Japan and Portugal.

Professor Caliński is the author or co-author of 149 scientific publications, including 72 studies and dissertations, 30 papers, 5 monographs, 25 algorithms with computer programmes (the well-known SERGEN package was also implemented abroad), 4 course books (including 2 monographs published by Springer in their Lecture Notes in Statistics Series). In his scientific output in the field of mathematical statistics, biometrics and experimental science, Professor Caliński is definitely a remarkable continuator of the scientific ideas originated by Jerzy Sława-Neyman.

Professor Malay Ghosh graduated from Calcutta University, India in statistics and obtained his bachelor's and master's degree in 1962 and 1964, respectively. He completed the doctoral studies in the field of statistics at the University of North Carolina, USA in 1969.

At present he works for the Department of Statistics, University of Florida, USA, where he holds the post of the distinguished Professor.

Professor Ghosh is widely known in the world community of statisticians as a specialist in statistics and particularly in the sub-field of Bayes inference called also empirical Bayes. His interests also focus on the so-called small area estimation.

The scientific and research output of Professor Malay Ghosh encompasses several books and around 300 articles. It is worth stressing that his work is characterized by highly original approach and high scientific standards.

Professor Ghosh has been the supervisor of around 40 scientific dissertations. In addition to his work for the University of Florida he has also acted as visiting Professor at many prestigious universities around the world. He has been heading many scientific and research grants related to both the theory and application of statistics.

Professor Malay Ghosh is a member of editorial boards of numerous reputable scientific magazines and a member of honour of many significant organizations and professional associations.

The list of Professor Ghosh's most important publications includes:

- Small Area Estimation: An Appraisal (with J.N.K. Rao) (1994). *Statistical Science*, V9, No. 1,
- Second Order Probability Matching Priors (with R. Mukerjee) (1997). *Biometrika*, V84, No. 4,

- Generalized Linear Models for Small Area Estimation (with K. Natrarajan, T.W.F. Stroud and B. Carlin) (1998). *Journal of the American Statistical Association*, V93, No. 1.

Professor Zdzisław Hellwig was the soldier of the 4th Lancer Brigade of the Home Army during World War II. In 1946 he took up economic studies at the College of Commerce and he continued studies at the Main School of Planning and Statistics in Warsaw which he graduated from in 1952. He was appointed a full Professor in 1972. Over the years Professor Hellwig held many responsible posts: he was held the Chair of Statistics in the College of Economics and the Academy of Economics in Wrocław in the years 1962-1995, and served as the director of the Institute and held the Chair of Statistics and Economic Cybernetics in the years 1969-1995, the Vice-President of the Academy of Economics in 1962-1965, 1968-1970, 1979-1981, and also the UNESCO expert in Paris in the years 1968-1974. Professor Hellwig gave lectures at the Ibadan University in Nigeria in the academic year of 1965/1966, and Tohoku University in Japan in 1997. He is best known as the founder of the school of scientific statistics, econometrics and cybernetics.

Professor Hellwig acted as the supervisor of 34 doctors, out of whom 15 later became Professors. His effort in educating research and academic staff was rewarded several times by the Minister of Education. In 1996 he was presented with a prestigious Prime Minister's Award for outstanding scientific achievement.

Zdzisław Hellwig received numerous awards and medals, e.g. Commander's Cross of the Order of Poland's Revival in 1990. In recognition of his merits in the field of statistics he was conferred honorary doctorates by the Academy of Economics in Krakow (1985) and Charles University in Prague – for his exceptional merits in development of economics and international scientific contacts (1994).

In the field of statistics he developed the Hellwig Method also known as the optimal selection of predicants, the method of coefficients of information capacity – a formal method of selection of explanatory variables for a statistical model (especially for an econometric model). The variables selected for the model should be strongly correlated with the explanatory variable yet weakly correlated among themselves. In addition to the above a numerical criterion is used – the so-called integral capacity of data carrier combinations. In this case all explanatory variables are data carriers.

Hellwig is the author of hundreds of publications. The most important ones include:

- Elements of Probability Calculus and Mathematical Statistics (1959),
- Linear Regression and its Application in Economics (1960),
- Stochastic Approximation (1965),
- Elements of Economic Calculus (1976).

Professor Jana Jurečková earned her master's degree at Charles University in 1962. She went on to obtain her doctor's degree in statistics in 1967 at the Czechoslovakian Academy of Sciences.

Professor Jurečková started working for the Chair of Probability and Statistics at the Department of Mathematics and Physics of Charles University in Prague in 1964. In 1984 she was conferred the degree of Dr Sc., and in 1992 she was awarded a professorship by the President of the Czechoslovakia. At present she works at Jaroslav H'ajek Centre for Theoretical and Applied Statistics.

Professor Jana Jurečková is the author of over 120 scientific papers which mostly appeared in periodicals on statistics and probability theory, and a co-author of a few monographs.

Her research interests encompass a wide range of problems of statistical inference:

- statistical procedures based on series,
- detailed statistical procedures based on so-called M-statistics and L-statistics,
- statistical procedures based on extreme sample observations,
- tail behaviour and its application in statistics,
- asymptotic methods of mathematical statistics ,
- behaviour of finite sample of estimations and analyses.

Achievements of Professor Jurečkova have vastly contributed to the development of statistics and probability theory.

Professional activities :

- since 2003 a member of the Scientific Society of the Czech Republic,
- a member of ISI (International Statistical Institute),
- cooperation with IMS (Institute of Mathematical Statistics),
- Associate Editor, Annals of Statistics, 1979 -1980 and 1992-1997,
- Associate Editor, Journal of American Statistical Association, 2005-2008,
- Associate Editor, Sankhya, 2006-2011.

Selected publications of Professor Jurečkova:

- Robust Statistical Procedures: Asymptotics and Interrelations, J. Wiley, New York 1996,
- Adaptive Regression, Springer, New York 2000,
- Robust Statistical Methods with R, Chapman & Hall/CRC, Boca Raton 2006,
- Methodology in Robust and Nonparametric Statistics, Chapman & Hall/CRC, Boca Raton, London 2012.

Professor Wojciech Janusz Krzanowski obtained his bachelor's degree (B.Sc.) from University of Leeds in 1967 and a Diploma in Mathematical Statistics from University of Cambridge in 1968. He was conferred a Ph.D. at the University of Reading in 1974.

Professor Krzanowski conducted his research and scientific activity in the following research centres:

- Rothamsted Experimental Station, Harpenden, United Kingdom – Scientific Officer 1968-1971,
- RAF Institute of Aviation Medicine, Farnborough, United Kingdom – Senior Research Fellow 1971-1974,
- University of Reading, United Kingdom – Lecturer 1974-1980, Senior Lecturer 1980-1987, Reader 1987-1990,
- University of Exeter, Department of Mathematical Sciences, Exeter, United Kingdom – Professor, Dean of Department of Mathematics in Exeter 1998-2002,
- Editor Journal of the Royal Statistical Society, Series C, 1991-1995,
- Member of editorial board, "Journal of Classification" (1984-present),
- Member of editorial board "Journal of the Royal Statistical Society, Series B" (1990-1992)
- Membership in: Biometric Society, Classification Society, International Statistical Institute, Polish Biometric Society, Royal Statistical Society.

Professor Wojciech Krzanowski is the author of five books and over 100 articles in scientific magazines, and chapters in books:

- "Principles of Multivariate Analysis: a User's Perspective", Oxford University Press, 1988, 2000,
- "Multivariate Analysis Part 1: Distributions, Ordination and Inference",
- "Multivariate Analysis Part 2: Classification, Covariance Structures and Repeated Measurements", [co-author.], Edward Arnold 1994/95,
- "Recent Advances in Descriptive Multivariate Analysis", University Press, Oxford 1995,
- "An Introduction to Statistical Modelling, with Edward Arnold, 1998.

Professor Kazimierz Zajac during World War II conducted underground teaching activities and, working for the Polish Red Cross, he organized help for thousands of Polish officers staying in P.O.W. camps. He was sworn into the Home Army, Krosno District, under the name of „Konrad” and he acted as aide-de-camp of the commander of Centrum Krosno outpost, second lieutenant Moskal (the pseudonym “Zrąb”).

In the years 1938/39 and after the war in 1945/46 he studied at the Academy of Commerce in Cracow where he took a course in diplomacy. He continued his education at the Main School of Commerce in Warsaw where in the years 1947-1948 he was doing his doctoral studies, attending a seminar in economics given by Professor Edward Lipiński. The degree of the Candidate of Science, which was at the time the equivalent of the Doctor of Economic Science, was conferred on him on 26 of June, 1958. In 1965 Professor Zajac became the head of the Chair of Statistics which he managed successfully for over 30 years until his retirement in 1986. He was awarded professorship in 1971, and he became full Professor in 1976.

Professor Zajac is a pioneer of research on population income and spending and pay in Poland and the main research results were presented in the following books: "Econometric Methods of Consumption Area Determination" (with B. Podolec, 1978), „Methods of Examination of Market Services”, (ed. by K. Zajac, 1982).

Another important area of Professor Zajac's scientific interests covered demography. The problems of both socio-economic and demographic nature are interwoven in the monograph entitled "Demographic Progress and Economic Development" (with: A. Sokołowski, 1987), „Taxonomy Methods in Socio-Economic Research" (with: J. Pocięcha, B. Podolec, A. Sokołowski; 1988).

In the field of statistical methods of quality control Professor Zajac wrote a number of papers and a book „Statistical Methods of Quality Control" (with: J. Cyran, J. Steczkowski; 1973).

In the years 1965-1995, as a member of the Scientific Council of the Central Statistical Office, he greatly contributed to setting direction of statistical research and development of methodology and practice of public statistics in Poland. Also, for many years he held a seat in the Scientific Council of the "Statistical News".

In the period of 1980-1986 he was the dean of the Department of Economics of Turnover of the Academy of Economic in Cracow.

For several consecutive terms he was a member of the Main Council of the Polish Statistical Society (PSS) and the President of the Cracow Section of the PSS. In 2000 he was awarded the Honorary Membership of the PSS.

He supervised 38 doctoral dissertations and 22 postdoctoral dissertations.

Professor Zając is the author or co-author of numerous course books and textbooks in statistics. His most outstanding and popular textbook entitled „*The Outline of Statistical Methods*”(PWE, Warsaw) has had 5 editions and has been used by generations of students in Cracow and other Polish academic centres.

In recognition of his achievement Professor Kazimierz Zając was awarded with the Commander's Cross and the Knight's Cross of the Order of Poland's Revival.

Professor Kazimierz Zając died on May 6, 2012.

Professor Ryszard Zieliński earned the master's degree from the Main School of Planning and Statistics, Department of Finance and Statistics in Warsaw, in 1955. He then undertook studies in mathematics at Warsaw University, which he completed in 1964. He was appointed the Professor of mathematical sciences in 1988.

His wide scope of scientific interests encompassed different aspects of statistics, which is well reflected in his output. He wrote mainly on mathematical statistics but also on statistical quality control, asymptotic statistics, robust statistical procedures, non-parametric statistics and generators of random numbers. One of his most remarkable achievements is a definition of statistic robustness which he proposed for the first time in a study of 1983 (*Robust statistical procedures: a general approach, Lecture Notes in Mathematics* 982, "Stability problems for stochastic models" Eds. V. V. Kalashnikov and V. M. Zolotarev, Springer-Verlag 1983, 283-295). His innovative approach gave an impulse to the development of robust methods of estimation and verification of statistical hypotheses.

Professor Zieliński interests also focused on non-parametric estimation of quantiles of probability distribution and widely understood probability of success. His studies have also been successfully applied to problems related to estimation of value at risk (V@R).

Throughout his busy lifetime he published over 100 original scientific studies (the first one appeared in 1956, and the last one in 2012).

In several dozens of his works he presented statistical methods and their applications in a highly approachable way. His textbook of statistics for secondary schools (*Probability Calculus with Elements of Mathematical Statistics, Państwowe Zakłady Wydawnictw Szkolnych, Warsaw, 1973*) has had

many editions and is still used in secondary education. Professor Zielinski also wrote a highly acclaimed textbook in advanced mathematical statistics (*Seven Introductory Lectures in Mathematical Statistics. Mathematic Library Vol. 72. PWN, Warsaw, 1990*) Moreover, he was a gifted translator and translated several books from English, Russian and German, e.g. C. R. Rao, *Liner Models of Mathematical Statistics*, PWN, Warsaw, 1982.

Professor Zielinski is the author of a few monographs devoted to Monte Carlo methods and generators of random numbers, some of which have been translated into German. He also compiled very popular and widely used *Statistical Tables* (PWN 1972, 1990).

Professor Ryszard Zieliński passed away suddenly on April 30, 2012.