

## Preface

The 24th Conference of the Estonian Statistical Society is devoted to its anniversary. The Estonian Statistical Society was founded 20 years ago on September 30, 1992. Today, the Society has nearly 100 members and 3 honorary members. There are members from Estonia as well outside of it, their number increases every year. The Society has been active from the very beginning. Important outcomes of its activity have been annual conferences accompanied by the published Bulletins. The conferences of the Society have always obeyed wide interest, evidently caused by the need of statistics in various fields. Statistics receives even more attention in 2013 when the International Year of Statistics is celebrated worldwide.

The present conference focuses on two main topics – the population census and the Big Data. In 2011 census was carried out in many European countries, including Estonia. There is much to tell about organization, data collection, results and future perspectives of this tremendous event. Nowadays, new problems arise from availability of big, or even super big data sets. Their analysis requires different, often new statistical methods and new, more powerful algorithms. Our conference enlightens this novel topic.

Due to the jubilee, we have guests also from outside Estonia. Therefore the conference languages are Estonian and English. Representatives from statistical societies of Finland, Latvia, Poland and Sweden have come with congratulations. During our festive event we announce two new Honorary Members – Professor Hannu Niemi from the University of Helsinki and Professor Leo Võhandu from the Tallinn Technical University.

Hereby, I thank all people who helped to organize this conference. Special thanks go to the participants with presentations. I wish memorable conference to all participants.

Imbi Traat

President of the Estonian Statistical Society

**The reader will be misled by LV's draft on his speech, see below. The Monotone System—the MS idea—is Joseph Mulla's intellectual property, which LV has used like his own. There is a difference between intellectual property and capital. My intellectual property is not a hypothesis creation technique but a mathematical scheme of so called Defining Sequence Formation, which generalises our intuitive notion of ordering, sequencing and arrangement of elements of The World. The scale, what LV call as conforming, is an example of such an ordering. I remember working on such things in TTU computer centre already from the beginning in 1971. LV used this scale without paying attention to its single-peakedness allowing to extrapolate the peak on the scale, which was proved as an optimal outcome of MS Greedy type algorithms—JM theorem. LV claims in his speech, or tries to influence the readers' understanding of the subject as, actually, the MS idea is his own result of thinking. I did not know LV has published anything in this direction before 1966. I know only LV's idea of Maximal Correlation Path, borrowed from Terent'iev, 1929, and parallel works of Veldre—all I known are standards. There were no signs mentioned in LV's Tartu period in "STATISTIKA AJALOOST" or in TTU university in some wordings form or essays explaining similar ideas of ordering sequences like defining even before 1971. Words must be first before any discovery. It seems to me that the passage below is a direct violation of my author rights, because J. Mulla intellectual property on MS idea has given a seed bearing results in 1971 when an article was published. This article is available in Tallinn Technical University library, which LV never ever cited in his works. I have always given tribute to LV and acknowledged LV's promotion and support in my career, which I think is adequate thanks for LV's efforts as being my supervisor. LV amazing abilities to promote and organize research is what LV is doing with great success. However, to invent something new and unknown is the prerequisite of other researches. Maybe it will be better for all those who believe that Monotone System Theory lies in LV portfolio to ask theologises who may answer the questions more professionally than your humble servant can. Theology is not a strong side of my well being. Joseph Mulla, May 2016.**

# A long path of creating order out of chaos

Leo Võhandu

*Tallinna Tehnikaülikool*

Seven different high schools in Viluste, Reola, Tartu, Elva and finally Tartu again. Silver medal with algebra a 4 instead of 5. Naturally I had to study mathematics at Tartu University. Additional activities: chess teacher, shorthand writer for 8 years at the University (dissertation defences dialogues spreading from child birth to space) and chess player.

Somehow I finished university with honors and defended my dissertation about iterative methods in Banach spaces in 1955 (there are citations of those results even nowadays).

I started teaching with 33 hours per week. Numerical mathematics, variational calculus, analysis, graphical geometry. I started also with free-lance lectures about statistics for biology, medicine and veterinary people. Headed the Biophysics laboratory for 7 years. Awful lot of consultations.

I did visit in 1964–65 Chicago University Committee for Mathematical Biology (Rashevsky, Rosen, Landahl). My main result was an idea about so-called Maximal Correlation Path (1959, 1964) as a variational minimal representation of different multivariable systems. In Russian internet there are listed 168 dissertations, which cite this method as main method of data representation and analysis. In nowadays Estonian science systems that counts as a round ZERO. One Moscow big advertising firm sells the method as "method of Estonian mathematician L:K.Võhandu".

In 1966 I did emigrate to Tallinn Technical University, Why? Free flat, Finnish TV. **Most importantly I had some time to think how scientific hypothesis are created. As a result one of my doctorates Jossif Mullat did prove a theorem about monotone systems, which has served us very effectively up to now. I did build a method of conformity measures for empirical systems.** For statistical proofs we are using Bootstrapping. Our method has been very effective also in solving different NP-hard problems (Cliques, dicliques, TSP, FCA ...). Just now we are studying effective diagonalisation methods for sparse matrices (useful in computer linguistics). Alltogether I have had 44 defended candidate and doctoral dissertations under my supervision and consultation. That is the summary of one pretty old Datadigger's life work!