PREFACE

We present the second volume of Folia oeconomica: "The Theory of Econometrics and Statistics Series". The papers contained in this volume were written by the members of the Econometric Theory Research Group affiliated formally with the Institute of Econometrics and Statistics, University of Łódź. The included papers have been prepared on the basis of research works and reports done within the research programme R.III.9, initiated and totally financed by the Polish Ministry of Science, Higher Education and Technology to which all the authors are very grateful. Without this support the works, reports and finally papers contained herewith, would never be prepared and written in the case of works and papers heavily dependent on computer simulations, or would never be prepared in such a short period of time in the case of others.

There is no striking difference between the subject field of the first volume and this one. There are more papers on numerical analysis of algorithms used in the estimation theory. Some papers extend the results presented in the first volume. Other papers present results on topics not covered by the previous volume.

One can classify the included papers according to many criteria. If it is a dominating tool of studies, then the papers P1, P2, P5, P6 (P1, P2,...., P10 are the identifiers of successive entries of the list of authors' names and titles included in the end of the volume under the heading "Contents") belong to the group with numerical methods as a dominating tool. The papers P3, P4, P9, P10 are characterized by a strong use of numerical simulation (Monte-Carlo) experiments, principles of experiment planning and estimation and test theory. The papers P7, P8 have as a dominating tool the methods of linear algebra, theory of econometrics, probability and statistics.

If as a criterion of grouping one takes the subject field of a given paper, then we have the following groups:

g1) the papers P1, P2, P5, P6 with numerical results on algorithms (Moore-Penrose generalized algorithm, algorithm of estimation of parameters of final form econometric models, two iterative methods of parameters estimation of CES function) and suggestions how to use them;

g2) the papers P3, P4, P9 with econometric and statistical theory results on properties of normality and run tests (behaviour of the estimated power of studied tests, properties of skewness and kurtosis measures);

g3) the papers P7, P8 with some results concerning an extension of efficiency and robustness characterizations for the estimators of parameters of general linear models and the paper P10 with some results on bias and efficiency of estimators for the parameters of linear autoregressive models;

g4) the papers P5, P6 with results on bias of iterative two-stage method and axial double iteration method of estimation for the parameters of CES production function models.

The authors are trying to preserve as far as possible the useoriented presentation of results. By no means the obtained results can be classified as complete results on a given interesting question or topic. In the case of papers with the numerical simulation results this is due to the restriction on the studied parameter space, the poverty of standard models neighbourhoods, the lack of good "tuning" devices for the experiment planning.

In the case of papers with the deductive results this is due to the often small practical applicability of the obtained theoretical results, a need for further extensions of these results and the lack of more powerful analytical tools.

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