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1. Introduction

VIKTOR YAKOVLEVITCH BUNIAKOVSKY (1804-1889) was a mathematician, a member of the Imperial Academy of Sciences (Petersburg) and its vice-president from 1864 to 1889. I describe all of his writings devoted to the theory of prob-
ability. However, I do not study in detail his investigations in population statistics, and I leave aside his more special contributions on annuities and pensions. BUNIAKOVSKY'S other works deal with mathematical analysis and the theory of numbers.

Other publications on my subject do exist [41; 45; 56; 91; 42] but they are too brief.

1.1. From Laplace to Buniakovsky. The LAPLACEAN period in the development of the theory of probability dragged on for a long time. Indeed, new fields of application of this theory appeared only at the end of the 19th century; moreover, LAPLACE made use of an insufficiently high level of mathematical abstraction. Thus probability as a truly mathematical discipline had to be created all over again [78, pp. 179–183].

Several mathematicians including BUNIAKOVSKY followed LAPLACE primarily restricting their attention to simplifying its exposition. Without bearing in mind POISSON, who essentially contributed to this discipline, I name LACROIX, COURNOT, and DE MORGAN. LACROIX'S book [49] ran into four editions and was translated into German. It was very useful but its mathematical level was not high. The same is true for COURNOT'S extremely interesting writing [31], also translated into German and recently reprinted in Paris.

DE MORGAN [34] expounded the theory of probability and its applications, although, unlike BUNIAKOVSKY, he did not dwell on population statistics. He offered a clear conception of LAPLACE'S mathematical methods and carried out many transformations in more detail than the Master. In 1838 he published a popular booklet on the same subject.

CHEBYSHEV originated a new stage in the development of the theory of probability. Apart from the proof of one limit theorem, his fundamental contributions began to appear in 1867, when BUNIAKOVSKY had almost abandoned the theory. Thus, not without reason, the Russian economist and philosopher STRUVE [88, p. 1318], who took notice of BUNIAKOVSKY'S note on linguistics (§ 3.5), called him a Russian representative of the French mathematical school.

1.2. Buniakovsky's Works. My list of references includes all of BUNIAKOVSKY'S known writings on the theory and application of probability. Some of his contributions on annuities and pensions were never published and a few auditorial reports on the work of pension funds of which BUNIAKOVSKY was a coauthor [22, p. 13] remain unknown (and possibly unpublished or even lost). In addition, many of his notes are scattered in various journals and newspapers [89, p. 7]. BUNIAKOVSKY himself [22, p. 16] indicated that in such sources he had inserted abbreviated versions of his reviews of works submitted to the Academy of Sciences.

Almost complete lists of his known works [22; 59] exist. Many of them are included in the Royal Society's Catalogue of Scientific Papers.

1 Chuprov [30, p. 30] was the first to acknowledge the achievements of this author in probability and statistics.