

THE STATISTICAL WORK OF DAVID VAN DANTZIG (1900–1959)

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1. Introduction. The death of David van Dantzig on July 22nd 1959 bereaved Holland of its foremost mathematical statistician and put an untimely end to his work. His importance for the development of research in and application of probability and statistics in Holland has been large; we lose not only an outstanding mathematician but also a pioneer. A short outline of his life and of his statistical work is given in the following sections. One topic is discussed in some detail: an application of his theory of “collective marks” to rank correlation. The theory of collective marks is perhaps his most interesting and most promising contribution to the theory of probability and statistics. The example mentioned has as yet only been published in mimeographed form [34]; it is a nice demonstration of the power of the method used and it may show the way to further applications.

A bibliography of probabilistic and statistical papers is given; a bibliography of all van Dantzig’s writings can be found at the end of [40] and a more extensive discussion of van Dantzig’s statistical work in [41].

2. His life. van Dantzig started his mathematical career as a pure mathematician: his main subjects before the war were topology, differential geometry, philosophy (in particular significs—“significa”—and the foundations of mathematics and physics) and mathematical physics. From 1932 onward he lectured at the Technical University at Delft, first as a Lecturer and later (1938) as Professor.

During the war he was discharged by the Germans and studied probability and statistics. Holland was at that moment decidedly an underdeveloped country as far as these subjects were concerned and he put himself to the task of changing this. He emerged from the war as an outstanding statistician and was at once given a central place as such at the municipal University of Amsterdam as Professor in the Theory of Collective Phenomena. Together with Prof. J. G. Van der Corput and Prof. J. F. Koksma he founded the “Mathematical Centre” in Amsterdam, an institution, subsidised by government and industry, which unites all branches of pure and applied mathematics in one organisation. As head of the Department of Mathematical Statistics he was able to stimulate research and consultation to such a degree that general recognition nationally and internationally soon followed. He was appointed Fellow of the Institute of Mathematical Statistics, the American Statistical Association and the Royal Statistical Society. He was a member of the International Statistical Institute and, in Holland, of the Royal Academy of Sciences (*Koninklijke Akademie van Wetenschappen*) and, of course, an outstanding member of the Dutch Statistical Association (*Vereniging voor Statistiek*). He was Visiting Professor at the Uni-

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