ON A NEW METHOD OF COMPUTING NON-LINEAR REGRESSION CURVES*

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In a memoir published in this journal in February 1930[1] Professor S. D. Wicksell pointed out that the well-known Pearson method[2] of computing skew regression curves by adopting the principle of least squares can be simplified, and in some direction generalized, by inserting some assumption concerning the distribution function of the population studied. After some remarks on the subject as advanced in the said memoir the problem was presented to me by Professor Wicksell. The results obtained by me as regards this problem were published as a part of my doctor thesis.[3] In the course of the official ventilation of my thesis Professor Wicksell made some interesting remarks concerning the relations between my solution and the general Pearson solution. His suggestion has led me to take up this special problem, which will be considered in the following lines.

I. We consider a bi-variate distribution and denote the variables x and y. The distribution function—for the sake of sim-

* From the Statistical Institution of the University of Lund, Sweden.

[1] *S. D. Wicksell,* Remarks on Regression.

[2] *Karl Pearson,* On the General Theory of Skew Correlation and Non-Linear Regression; Mathematical Contributions to the Theory of Evolution / Drap. Comp. Res. Mem., Biom. Ser. II, 1905.

[3] *Walter Andersson,* Researches into the Theory of Regression, chapters IV-VI, / Kungl. Fysiografiska Sällskapets Handlingar, N. F. Bd. 43, Nr. I; also as Meddelande från Lunds Observatorium, Ser. II. Nr. 64 /