**Mathematics.** — *Demonstration that the concept of spreads of higher order does not come into consideration as a fundemental notion in intuitionistic mathematics.* By Prof. L. E. J. Brouwer[*]

(Communicated at the meeting of September 26, 1942.)

In my note, *"Concerning the free development of spreads and functions"*,[1] the process $M_\sigma$ was considered, through which the fundamental sequence $F'$, which is enumerated in an arbitrary, predetermined way, is associated one-to-one with finite choice sequences of numbers and likewise an arbitrary element $\sigma$ of the spread[2] $M$. We want to call this process $M_\sigma$ a spread *of second order*, and the successions of figure-sequences thus associated to the unrestricted choice sequences of numbers [we shall call] *the elements of the second-order spread* $M_\sigma$.

The assertion stated in my quoted note, that $M_\sigma$ acts as a subspecies of a spread $M_1$ which is derivable from $M$, and that the union of all $M_\sigma$ generated from $M$ is identical with this $M_1$, shall be demonstrated as follows. First, we will deal with the construction of the spread $M_1$.

Let $\alpha_1\,\alpha_2\,\ldots\,\alpha_m$ be a finite choice sequences of numbers. We will indicate the rank thereof in the fundamental sequence $F'$ with $\varrho\,(\alpha_1\,\alpha_2\,\ldots\,\alpha_m)$ and the maximum of the numbers $\varrho\,(\alpha_1)\,,\ \varrho\,(\alpha_1\,\alpha_2)\,,\ \ldots\ \varrho\,(\alpha_1\,\alpha_2\,\ldots\,\alpha_m)$ with $\zeta\,(\alpha_1\,\alpha_2\,\ldots\,\alpha_m)$.

[*] Translated from the original German by Jon Sterling.

[1] Proc. Ned. Akad. v. Wetensch. Amsterdam, **45**, 322 (1942).

[2] For the sake of simplicity, we restrict ourselves in this note to such spreads, in the process of whose creation neither inhibition nor termination occurs. This restriction is inessential.