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★ **A note on the internal logic of constructive mathematics: the Gel'fond-Schneider theorem in transcendental number theory. (English summary)**

The road to universal logic, 297–306, *Stud. Univers. Log.*, Birkhäuser/Springer, Cham, 2015.

The author promises to argue that “intuitionistic logic cannot alone provide secure foundations for constructivist mathematics”. Whether the paper can really keep this promise is left to the reader. As for the mathematical part of the paper, unfortunately, there are a lot of imprecisions, grammatical errors and typos. For example, on page 302 the formula (3.2), which is called the “well-ordering principle”, reads as

$$\forall S \subseteq \mathbb{N} (S \neq \emptyset \wedge \exists x (x \in S)) \rightarrow (\exists y < x \wedge y \in S).$$

Did the author intend to write

$$\forall S \subseteq \mathbb{N} (S \neq \emptyset \rightarrow \exists x [x \in S \wedge \neg \exists y < x (y \in S)])?$$

In Section 4 (Transfinite Induction) there is a proof (starting from (4.1) and ending with a QED mark (\square) on the next page (303 after (4.15)). Is this a proof of a (unmentioned) theorem? In the middle of this proof, we have the formula (4.4) $\forall x \neg Ax \vee \exists y Ay$, which leads to the formula (4.7) $\forall x \neg Ax \vee \exists x Ax$. Do we need a three-step proof for this change of variables (even in constructive logics)? Another major imprecision is in the discussion of Rolle’s Theorem in the introduction, which should hold for *differentiable* functions (not just continuous functions as the author states, since obviously their differential may not exist).

Many other typos and errors make the paper difficult to read overall. *Saeed Salehi*