



Preface

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Kurt Gödel's article 'Über formal unentscheidbare Sätze der Principia Mathematica und verwandter Systeme I' appeared in December 1931 in the Monatshefte für Mathematik. Exactly 90 years ago this article revived, and at the same time finished in some sense, the quarrel around the discussion on the foundations of mathematics. At that time the formalist point of view, as advocated and brought forward by Hilbert, and shortly after by Bourbaki, was opposed to various other philosophical systems for mathematics.

Gödel's famous result is taught, in reduced depth, in many of our beginner's courses. The unease in parts of the mathematics community at the beginning of last century is not as widely known as Hilbert's and Bourbaki's very successful foundational work, at least not in the same detail. Maybe, one of the most radical approaches was Brouwer's Intuitionistic foundation of mathematics. Rarely known in the mathematics curricula in our time, it may be worth looking at it even though. It may remind us that mathematics as most of us practice it nowadays is not self-evident. Alternative foundations of mathematics are thinkable and some are even brought to maturity. Wim Veldman explains one of these concepts in his long overview 'Intuitionistic mathematics, an inspiration?'. What you will read there is very different from what we are used to, certainly not consensual. However, I promise a reading which is, as one would say in France, 'dépayasant'.

In addition, more traditional mathematics can be found in this December volume. N. Lerner's book on Carleman Inequalities is reviewed by Genni Fragnelli and S. Kondo's book on K3-surfaces is reviewed by Christian Liedtke.

I hope you enjoy this new volume of the Jahresbericht.

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