

Mechanising the Mind: Turing and the Computable - a centenary lecture

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Abstract

On the occasion of this Turing centenary year we revisit his fundamental 1936 paper "*On Computable numbers*" (written when he was only 24), thus solving Hilbert's *Entscheidungsproblem*, and somewhat incidentally laying the foundations of a theory of computer science.

We take a similar snapshot of his later PhD thesis and the resulting paper on *Systems of Logic based on Ordinals*, which tried to overcome the limitations of Gödel's Second Incompleteness Theorem in formal theories, and, although ingenious, see why this analysis in the longer term did not prove so successful.

Together with some recounting of the biographical details of Turing's life, this lecture should be accessible to all.

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