

# Foundations of mathematics: an optimistic viewpoint

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## Abstract

Historically, mathematics has been regarded as a “role model” for all of science – a paragon of abstraction, logical precision, and objectivity. The 19th and early 20th centuries saw tremendous progress. The great mathematician David Hilbert proposed a sweeping program whereby the entire panorama of higher mathematical abstractions would be justified objectively and logically, in terms of finite processes. But then in 1931 the great logician Kurt Gödel published his famous incompleteness theorems, leading to an era of confusion and skepticism. In this talk I show how modern foundational research has opened a new path toward objectivity and optimism in mathematics.

## References

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