Foundations of mathematics: an optimistic message

Speaker: Stephen G. Simpson  
Pennsylvania State University, USA
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"Objective concepts of mathematics are fundamental to my work in logic."  
-- Kurt Gödel (1906-1978)

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, thus initiating 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.

About the Speaker  

Stephen G. Simpson is a senior mathematician and mathematical logician. He is prominent as a researcher in the foundations of mathematics. His writings have been influential in promoting the foundations of mathematics as an exciting research area.