

Barry Mazur is the Gerhard Gade University Professor at Harvard University. Starting from brilliant beginnings as a topologist in the 1960s, he was the first mathematician to apply the great edifice of algebraic geometry constructed by Alexander Grothendieck to the study of the spectrum of the integers, going on to prove a treasure trove of theorems in number theory including Ogg's conjecture on the torsion of elliptic curves and the main conjecture of Iwasawa theory (with Andrew Wiles). He also initiated the deformation theory of Galois representations, which was to play an essential role in most of the advances on the Langlands programme since the 1990s starting with the proof of Fermat's last theorem by Wiles.

In addition to sharing his penetrating and fertile insight on mathematics, Professor Mazur has consistently urged his students and colleagues to step back occasionally from the frontlines of research to look broadly over their field with a philosophical perspective. This combination of vast knowledge, astounding originality, and contemplative depth has solidified Professor Mazur's position as one of the most influential mathematicians in the world of the last half-century.