
Barry Mazur

Dr. Barry Mazur received his PhD from Princeton in 1959. After that he became a Junior Fellow at Harvard from 1961 to 1964. He is the Gerhard Gade University Professor and a Senior Fellow at Harvard. His early work focuses on geometric topology, then he turns to number theory especially on automorphic forms and elliptic curves.

In 1982 Mazur was elected a member of the National Academy of Sciences, and in 2012 he became a Fellow of the American Mathematical Society. Mazur has received the Veblen Prize in geometry, the Cole Prize in number theory, the Chauvenet Prize for exposition, and the Steele Prize for seminal contribution to research from the American Mathematical Society. In early 2013, he was presented with one of the 2011 National Medals of Science by President Barack Obama.

I understand that 70th birthdays are particularly important in China. Therefore, quite naturally, in 2005 you celebrated the seventieth anniversary of the Chinese Mathematical Society discussing a span of mathematics from geometric analysis in the large—(inspiringly: in the large) ranging from Einstein metrics, Ricci Flow, Thom’s ideas about minimal surfaces in algebraic varieties, Calabi-Yau varieties, the Thurston program, and Mostow rigidity.

Of course this broad profile of mathematical culture doesn’t at all encompass the full landscape of mathematical territory that you yourself have explored, and continue to explore happily, and from which you have brought back to us treasures. Your

explorations are testimony to the grand unity of our subject:

- ranging from the positive mass conjecture and the existence of black holes, to theorems giving us control of the fine structure of varieties of importance to number theory (e.g., bounds on the gonality of modular curves),

and your extraordinary talent for bringing people, as well as mathematical subjects, together is such an important unifying force for our mathematical community:

- as in the creation of flourishing institutes of mathematics (in our home university, as in China).

Another unifying and extremely inspiring influence for all of us at Harvard is your actual presence—coffee cup in hand—and your interest in—such a broad range of seminars. And when I say ‘broad range’ I do mean it: a few decades ago I arranged an evening weekly lecture seminar for the freshmen taking Calculus 1b to get professors from other subjects to come and talk about how—knowing only what calculus we had taught up to that point—there were interesting applications in their subject. You would come! The lecturer would assume that the room was filled only with freshmen, and teaching assistants and me, and so questions—some of them coming from you—would be answered in a manner that could be grasped by our Calculus 1b students. These were terrific, memorable, exchanges that I value greatly.

Thanks for all this ... and happy 70th birthday.