

RAJESH GOPAKUMAR - SHORT BIO

Prof. Rajesh Gopakumar is a theoretical physicist who is Distinguished Professor and Director of the International Centre for Theoretical Sciences, Tata Institute of Fundamental Research in Bengaluru. His research interests are in string theory and quantum field theory aiming to understand the nature of fundamental interactions in nature.

He completed his MSc in physics from IIT Kanpur in 1992 and received his PhD from Princeton University in 1997. After a few years as a Research Associate at Harvard University, he joined Harish Chandra Research Institute, Allahabad in 2001 where he was until 2015. He was also a Visiting Fellow at the Institute for Advanced Study, Princeton, New Jersey from 2001 to 2004.

Prof. Gopakumar's work in theoretical physics aims to understand the versatility of string theory and he has developed a program to decipher the AdS/CFT correspondence. His early research was primarily focused on large N gauge theories, non-commutative gauge theories and topological string theory. His work in the context of topological string theory has also had an impact in mathematics in what are now known as the Gopakumar-Vafa invariants. He has recently also worked on the conformal bootstrap in quantum field theory.

He is the recipient of the B.M. Birla Science Prize in Physics in 2004, the ICTP Prize in 2006, the Swarnajayanti Fellowship in 2006, the Shanti Swarup Bhatnagar Award in 2009, the GD Birla Prize in 2013, The TWAS Prize for Physics in 2015, JC Bose National Fellowship in 2015. He was one of the inaugural recipients of the Frontier of Science Awards at the International Congress for Basic Sciences in 2023. He is a founding member of the Global Young Academy and was elected the Fellow of The World Academy of Sciences in 2015. He is also a Fellow of the Indian Academy of Sciences, the Indian National Science Academy (INSA) and the National Academy of Sciences, India (NASI). In 2019, he received IIT Kanpur's Distinguished Alumnus Award.