

Ramanujan and his contributions

December 12, 2020

In news

Recently, the Ramanujan Prize for Young Mathematicians 2020 awarded to Dr. Carolina Araujo from Brazil for outstanding work in Algebraic Geometry

About Ramanujan Prize for Young Mathematicians 2020

- The prize is awarded annually to a researcher from a developing country funded by the Department of Science and Technology of the Government of India in collaboration with ICTP (International Centre for Theoretical Physics), and the International Mathematical Union
- The Prize, given every year to young mathematicians less than 45 years of age who have conducted outstanding research in a developing country
- The recent prize is given to Dr. Carolina Araujo (first non-Indian to receive it) for her work on birational geometry, which aims to classify and describe the structure of algebraic varieties.

A brief note on Srinivasa Ramanujan and his contributions

- He was born on 22nd December 1887 in Erode, India
- Ramanujan, Indian mathematician whose contributions to the theory of numbers include pioneering discoveries of the properties of the partition function.
- He also discovered the properties of the partition function
- Though he had almost no formal training in pure mathematics, he made substantial contributions to mathematical analysis, number theory, infinite series,

and continued fractions, including solutions to mathematical problems then considered unsolvable.

- In 1911 Ramanujan published the first of his papers in the Journal of the Indian Mathematical Society.
- His genius slowly gained recognition, and in 1913 he began a correspondence with the British mathematician Godfrey H. Hardy led to a special scholarship from the University of Madras and a grant from Trinity College, Cambridge.
- His original and highly unconventional results, such as the Ramanujan prime, the Ramanujan theta function, partition formulae and mock theta functions, have opened entire new areas of work and inspired a vast amount of further research
- In 1918 Ramanujan became one of the youngest Fellows of the Royal Society of London and only the second Indian member, and the first Indian to be elected a Fellow of Trinity College, Cambridge.
- During his short life, Ramanujan independently compiled nearly 3,900 results (mostly identities and equations).
- In 1919, due to hepatic amoebiasis (a complication from episodes of dysentery many years previously) compelled Ramanujan's return to India, where he died in 1920 at the age of 32
- His "lost notebook", containing discoveries from the last year of his life, caused great excitement among mathematicians when it was rediscovered in 1976.