Abel Prize, 2022

March 25, 2022
In news– Abel Prize has been awarded to Professor Dennis Parnell Sullivan recently.

About Professor Dennis Parnell Sullivan-

- Prof. Sullivan from the City University of New York was **awarded the prize for his groundbreaking contributions to topology in its broadest sense**, and in particular its algebraic, geometric and dynamical aspects.
- **Topology is the study of space and shapes**, and most of Dr. Sullivan's work involves what mathematicians call manifolds – the higher-dimensional versions of two-dimensional surfaces.
- While that work is abstract, **some of his recent research in fluid flows and turbulence could add to the understanding of the paths of hurricanes**, the dispersions of air pollutants and the whorls of vortices behind airplane wings.

About the award-

- **It is awarded annually by the King of Norway to one or more outstanding mathematicians.**
- **It is named after the Norwegian mathematician Niels Henrik Abel and the** prize was instituted in 2002, to commemorate his 200th birth anniversary.
- **Abel was a young genius who, when he was just 22, showed the unsolvability of the quintic equation,** which had puzzled mathematicians for 250 years.
- In 1826, he presented an important theorem in Paris.
- Now, **his discovery forms the mathematical basis for the CT scan and also used today in ECC-cryptography, used for encrypting data online.**
- He contracted tuberculosis and died on April 6, 1829, when he was only 26 years old.

- **The Fields Medal and the Abel Prize are the two important international prizes for mathematics.**
- While the **Fields Medal honours brilliant work done by a mathematician below the age of forty years**, the **Abel Prize has no age limit and is more of a lifetime achievement award** celebrating important contributions made to a field of mathematics.
- **The first Abel Prize, awarded in 2003, went to French mathematician Jean-Pierre Serre.**
- **The only person of Indian origin to have won this prize is Srinivasa S.R. Varadhan** in 2007 and was awarded for his fundamental contributions to probability theory and in particular for creating a unified theory of large deviation.
- So far, the prize has gone to **only one woman mathematician, Karen Keskulla Uhlenbeck** of University of Texas, U.S.A.
- **The prize consists of a citation and a prize money of 7.5 million Norwegian Kroner.**