

IXPE mission of NASA

December 11, 2021

In news– Recently the SpaceX Falcon 9 rocket launched with NASA's Imaging X-ray Polarimetry Explorer (IXPE) spacecraft onboard from NASA's Kennedy Space Center in Florida.

About IXPE mission-

- IXPE is an **international collaboration between NASA, the Italian Space Agency**, along with partners and providers in **12 other countries**.
- **It is NASA's first mission dedicated to measuring the polarization of X-rays from the most extreme and mysterious objects** in the universe – supernova remnants, supermassive black holes, and dozens of other high-energy objects.
- The mission's **primary length is two years** and the observatory will be at 600 kilometers altitude, orbiting around Earth's equator.
- IXPE is expected to **study about 40 celestial objects in its first year in space**.
- It will **shed light on exploded stars, black holes and other violent high-energy events unfolding in the universe**.
- **IXPE carries three state-of-the-art space telescopes**. Each of the three identical telescopes hosts one light-weight X-ray mirror and one detector unit.
- These will help observe polarized X-rays from neutron stars and supermassive black holes.
- This new mission will complement other X-ray telescopes such as the Chandra X-ray Observatory and the European Space Agency's X-ray observatory, XMM-Newton.