

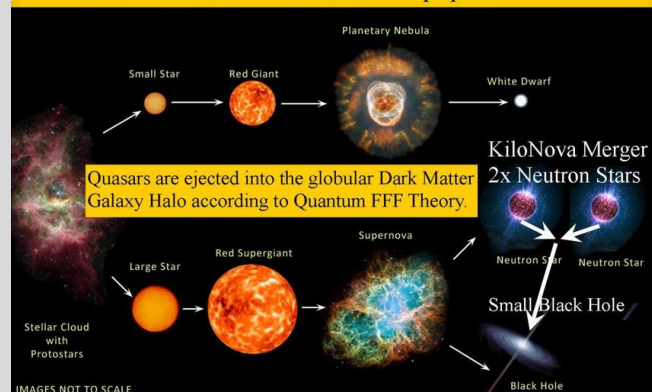


# BLACK HOLES

## ORIGINS

- death of a massive star
- Stellar Nebula -> red supergiant-> supernova -> Black Hole / Neutron Star

KiloNova Merger Black Holes as the origin of Quasar-based Dark Matter Black Hole Halo population.



## PHYSICAL PROPERTIES

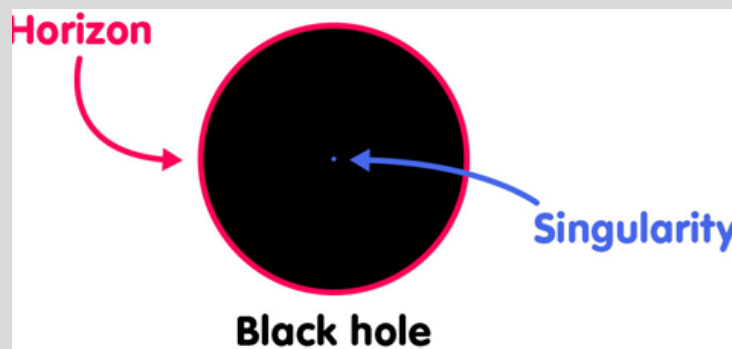
three properties:

- mass,
- electric charge,
- amount of rotation.

The gravity is so strong, that no particles or light can escape from it. This is the reason why it is black.

## PROCESS OF FORMATION

- death of a massive star
- core -> unstable , gravitationally collapses inward upon itself -> implodes
- rays of light can't escape -> "black" Hole



# TYPES OF BLACK HOLES

In the universe we find many different kinds of blackholes, from tiny structures to enormous ones:

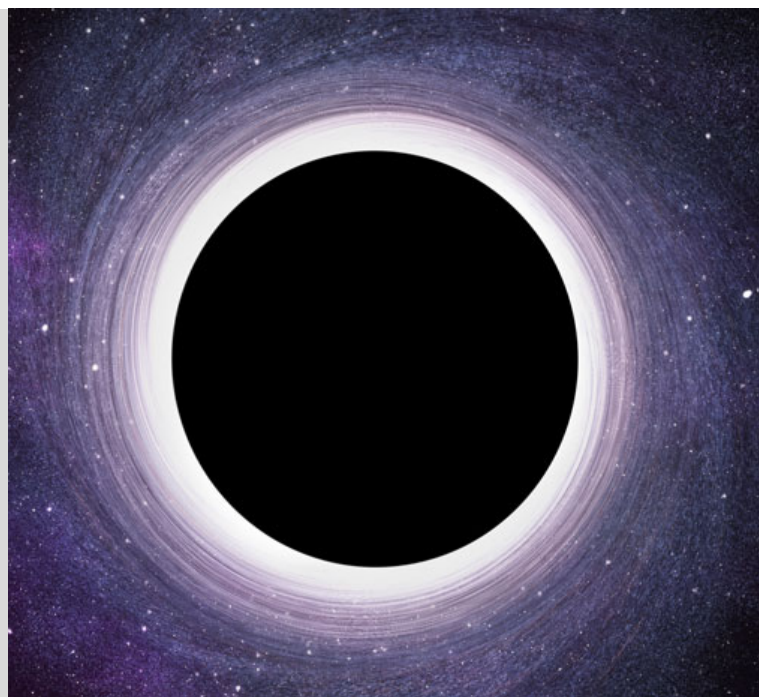
- primordial Black Holes ->emerged soon after the Big Bang
- stellar-mass Black Holes ->formed by the gravitational collapse of a star
- intermediate-mass Black Holes ->ranging in mass
- supermassive Black Holes-> the largest type of black holes



## DISCOVERIES ABOUT BLACK HOLES

The objects whose gravity is so intense not even light can escape them

The Cygnus X-1 is the first black hole, an intense X-ray source in the constellation Cygnus discovered by Louise Webster, Paul Murdin and Thomas Bolton



## CURIOSITIES AND WEIRD FACTS ABOUT BLACK HOLES

When a star passes too much near a black hole, it will be immediatly destroyed because of the extreme attraction of the black hole.

this phenomena is known as "tidal destruction event"

