"Life after Stellar Death: A Zoo of Pulsars and Supernova Remnants"

When massive stars die, they go `supernova' and give birth to a compact object, a neutron star, which may be subsequently observed as a `pulsar'. This cataclysmic explosion drives an enormously energetic shock wave, which sweeps through the dying star at vast speeds, blasting its outer layers into space and enriching the surrounding medium with heavy elements. The shocked medium is observed as a region of diffuse emission, referred to as the `supernova remnant'. Since pulsars are born in supernova explosions, they are expected to be found in supernova remnants. However, the number of pulsars found associated with supernova remnants is small. This has puzzled astronomers ever since the discovery of pulsars in 1967.

I will highlight new surprising discoveries which shed light on our understanding of the birth properties of neutron stars and their interaction with supernova remnants. The zoo of pulsars and supernova remnants is growing, and many more surprises await the new generation satellites.

REFRESHMENTS AT 4:15 P.M.

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