THEORY OF PULSAR WINDS

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I discuss recent work on the nature of relativistic winds from Rotation Powered Pulsars, on the physics of how they transport energy from the central compact object to the surrounding world, and how that energy gets converted into observable synchrotron emission form known Pulsar Wind Nebulae.

I also comment on the possible relation of such winds from newly formed, rapidly rotating magnetized neutron stars and the Gamma Ray Burst phenomenon, and on a possible relation to the origin of Ultra High Energy Cosmic rays.