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場 所: 理学部4号館1階ピロティ RESCEU セミナー室

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## The Extreme Physics of Pulsar Wind Nebulae

### Abstract

The universe excels at creating objects whose properties are beyond anything achievable on Earth. A prime example of this are pulsar wind nebulae (PWNe) - which are powered by the rotational energy of a strongly magnetized ( $> 10^{12}$  Gauss), rapidly rotating (rotation period  $P \sim 10$  ms - 1s), neutron star ( $\sim 1.5$  times the mass of the Sun and the diameter of Tokyo-Yokohama), and contain particles  $\sim 100$  times more energetic than currently produced at the CERN LHC. In this talk I will describe what we have learned about the formation of neutron stars and the production of such high-energy particles by fitting the observed properties of a PWN with a simple model for its dynamical and radiative evolution.

興味をお持ちの方の聴講を歓迎致します。お茶とお菓子を用意しております。