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### Astronomical observational evidences of magnetic monopoles and its implication of astrophysics

An anomaly strong radial magnetic field near the Galactic Center (GC) is detected. The lower limit of the radial magnetic field at  $r=0.12$  pc from the GC is  $B \geq 10$  mG. Its possible scientific significances are following: (1) The black hole model at the GC is incorrect. The reason is that radiations observed from the region neighbor of the GC are hardly emitted by the gas of accretion disk due to it being prevented from approaching to the GC by the abnormally strong radial magnetic field. (2) This is an anticipated signal for existence of Magnetic Monopoles (MM). The lower limit of the detected radial magnetic field is quantitatively in agreement with the prediction of our paper "An AGN model with MM. (3) Magnetic monopoles may play a key role in some very important astrophysical problems using the Robakov-Callen effect that nucleons may decay catalyzed by MM. Taking the RC effect as an energy source, we have proposed a unified model for various supernova explosion, including to solve the question of the energy source both in the earth core and in the white dwarfs and (4) We may explain the physical reason of the hot big bang of the universe with the similar mechanism of supernova explosion by using the RC effect as an energy source.

### Biography

Qiu-he Peng graduated from Department of Astronomy, Nanjing University at 1960 firstly taught at Peking University for 18 years and then is teaching at Nanjing University. He is mainly engaged in nuclear astrophysics, particle astrophysics and galactic astronomy research. In the field of nuclear astrophysics, Peng's researches involve neutron stars (pulsars), the supernova explosion mechanism and the thermonuclear reaction inside the star, the synthesis of heavy elements and interstellar radioactive element such as the origin of celestial  $^{26}\text{Al}$  and where he has published 225 papers.

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