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**Both of Supernova Explosion and Hot Big Bang of the  
Universe Driven by Magnetic Monopoles and Challenge to Black Hole Models**

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1) An unusually strong radial magnetic field detected near our Galactic Center (2013) is consistent with the prediction from our model of supermassive object with magnetic monopoles (MM) (Peng and Chou 2001). The important implications of the unusually strong radial magnetic field near the GC are:

- a) A strong evidence of the existence of MM;
- b) The black hole model of the supermassive object at the GC is **nonphysical** (Peng et al., 2016; 2017); c) MM may catalyze nucleon decay (Rubakov -Callen effect) may be real.

2) Taking the RC effect as an energy source, we have proposed an unified model for various supernova explosion (Peng et al. 2017). In our model, the remnant of the collapsed core of supernova is still a neutron star rather than a black hole no matter how huge of the supernova mass. That means, black holes with stellar mass are impossible to be formed through **supernova explosion**.

3) 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. That is, the **primordial Black hole** of the whole Universe is no physical.

**Biography**

After graduating from the Department of Astronomy, Nanjing University in 1960, Qiu-he Peng taught at Peking University for 18 years and then is teaching at Nanjing University. Q. Peng 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 26Al. 226 papers of him have been published.

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