Contribution ID: 8

## Challenge to Black Hole Models and Supernova explosion driven by Magnetic

Tuesday, 13 August 2019 15:30 (20 minutes)

1) A 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 suppermassive object at the GC is unphysical (Peng et al., 2016; 2017).

2) I shall also give query on the black hole models for other quasars and active galactic nuclei. The key dilemma of the black hole model is the question on the BH mass at the center of AGNs.

The dilemma will disappear in our model of Supper-massive Stars with MM.

3) Taking the RC effect (nucleons may decay catalyzed by MM) 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.

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

## Keywords

Core-Collapse Supernovae

Primary author: Prof. PENG, Qiuhe (Nanjing University)Presenter: Prof. PENG, Qiuhe (Nanjing University)Session Classification: Core-Collapse Supernovae