Abstract Submitted for the APR15 Meeting of The American Physical Society

Current Flowing In Accretion Disk and State Transition of Black Hole Binaries DING-XIONG WANG, Retired, CHANG-YIN HUANG COLLABORATION¹, YONG-CHUN YE COLLABORATION² — The state transition of black hole binaries is discussed based on the evolution of magnetic field configuration, and the latter is related closely to the current flowing in an accretion disk around a black hole. It turns out that the main characteristics of the transition from low/hard state to high/soft state can be fitted by invoking the transportation of current from the outer region to the inner region in accretion process.

Ding-Xiong Wang Retired

Date submitted: 11 Dec 2014 Electronic form version 1.4

¹Chang-Yin Huang is a lecturer working in Yangtze University.

²Yong-chun Ye is a lecturer working in Huazhong University of Science & Technology