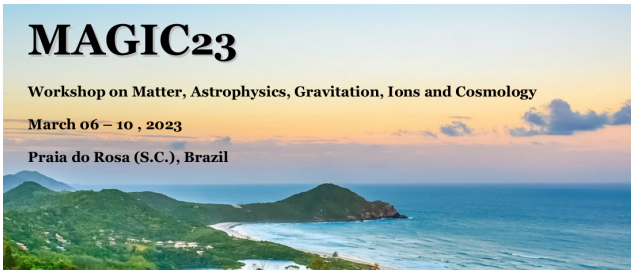

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AN ACCRETION-JET MODEL FOR 3C 84: INTERPRETING THE SPECTRAL ENERGY DISTRIBUTION AND FARADAY ROTATION MEASURE

In this work we mainly investigated the accretion and jet process near the black-hole horizion of 3C 84 through the high-spatial resolution, multi-waveband data and Faraday rotation measure (RM). Through the multi-waveband spectral energy distribution (SED) of 3C 84, we find that the SED is difficult to fit with pure advection dominated accretion flow (ADAF) or pure jet model. We used a coupled ADAF-jet model to fit the SED of 3C 84. We found that the radio emission and the millimeter emission can be naturally reproduced by the synchrotron radiation of non-thermal electrons in the jet, and the X-ray emission may predominantly come from the synchrotron emission from the thermal electrons in ADAF. Finally, according to the RM obtained by the polarization observation, we considered the possible location of the polarizing source (from the different positions in the accretion disk or jet) and found that the calculated RM in the jet is roughly consistent with the observational constraints.

Author: Mr FENG, Jianchao (Guizhou Normal University)

Co-author: Mr WANG, Xiaowen (Guizhou Normal University)

Presenter: Mr FENG, Jianchao (Guizhou Normal University)

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