The characteristics of galaxies with powerful radio jets
Zheng, X.

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List of publications

First-author publications

1. *Link between radio-loud AGNs and host-galaxy shape*

2. *Shapes of galaxies hosting radio-loud AGNs with $z \leq 1*

3. *MaNGA integral-field stellar kinematics of LoTSS radio galaxies: Luminous radio galaxies tend to be slow rotators*

4. *The jet-galaxy alignment in the LoTSS DR2*

Co-author publications

1. *Variability-selected Low-luminosity Active Galactic Nuclei Candidates in the 7 Ms Chandra Deep Field-South*
   Ding, N., Luo, B., Brandt, W. N., Paolillo, M., Yang, G., Lehmer, B. D., Shemmer, O., Schneider, D. P., Tozzi, P., Xue, Y. Q., Zheng, X. C., Gu,

2. A magnetar-powered X-ray transient as the aftermath of a binary neutron-star merger


4. Searching for fast extragalactic X-ray transients in Chandra surveys

5. Piercing through Highly Obscured and Compton-thick AGNs in the Chandra Deep Fields. II. Are Highly Obscured AGNs the Missing Link in the Merger-triggered AGN-Galaxy Coevolution Models?


7. The universal shape of the X-ray variability power spectrum of AGN up to \( z \sim 3 \)
Curriculum Vitae

I was born in Maoming, a city on the seaside of southern China, on March 30, 1992. Maoming is a subtropical city with a great gastronomic culture. Various fruits, delicious cuisine, summer heat, typhoon and starry nights with nearly all-sky constellations made up my childhood. Interestingly, my dream was actually being an astronaut instead of an astronomer when I looked upon the night sky in my parents’ arms. Fortunately, I took a different direction, otherwise this thesis would not ever exist.

I was admitted to University of Science and Technology of China (USTC) in 2010 through the national exam. USTC has one of the best astronomy departments in China. In 2012, I began to learn to do research with the help of Prof. Yongquan Xue. Two years later I got my Bachelor’s degree with a thesis studying the X-ray variability of AGNs in the Chandra Deep Field South (CDF-S). Then I continued my study as a master’s student in USTC under the supervision of Prof. Xue until late 2017. I worked with the CDF-S collaborators and contributed to two papers related to the X-ray variability in CDF-S. Then in 2017 I published a first-author article discussing the long-term X-ray variability of AGNs and got my Master’s degree. During my 7 years in USTC, I also attended summer school in Xinglong Observatory to learn the processing of optical spectrum. It was great to extend the knowledge beyond X-ray data. This set the background for my choice to focus on other wavelengths when I applied for PhD program. Apart from academic work, I also acted as an active amateur astronomer in the amateur association of USTC. I organised a big amateur forum gathering undergraduate amateur astronomers in China in 2012. It was really a special experience to know and communicate with amateur astronomers around the country. Some of them became my good friends.
and also helped me a lot in my academic work.

In 2018 I joined Leiden Observatory to pursue my PhD’s degree. I started to work on the AGNs with radio data, which was new to me. Thanks to the patience and supervision of my supervisors Prof. Huub Röttgering, Dr. Kenneth Duncan and the colleagues in the LOFAR groups, I got used to the new data soon and could focus on the science topic in a short time. My work focused on the morphology of galaxies hosting radio AGNs. In the field of galaxies’ morphology, I received a lot of help from Prof. Arjen van der Wel and Prof. Michele Cappellari. Moreover, during the years in Leiden, I also continued to work with the CDF-S collaborators, with whom I was able to publish a Nature paper as one of the main authors and keep working on X-ray astronomy.

From 2023, I will become a member of Shanghai Astronomical Observatory doing my postdoctoral project. I will be working with Prof. Mingfeng Gu to study the magnetic fields of radio AGNs with LOFAR and future SKA data. The program will also focus on the triggering problem of radio AGNs.
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