YUNTING WANG

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EDUCATION

Department of Astronomy, Xiamen University *Sep. 2017 - Present*
Bachelor of Science *Expected Graduation: Jun 2020*

· Overall GPA: 87.39/100 (Rank: 2/12) TOFEL iBT: 111/120 (Speaking: 27)

PROGRAMMING EXPERIENCE

Python (Experienced): Model Fitting, Data Reduction & Visualization
Basic Proficiency: Shell, C, R, SQL, CIAO, XSPEC, Machine Learning Algorithms

OBSERVING EXPERIENCE

Co-I, Five-hundred-meter Aperture Spherical radio Telescope (FAST) (2020.9)
Probing the HI Gas Contents of Transitional Galaxies Indicated by the [NII]/[SII] ratios
ID: PT2020_0186, allocated **11.2 hours**, **PI:** Prof. Taotao Fang

RESEARCH EXPERIENCE

Exploring Transitional Galaxies Indicated by [NII]/[SII] ratios *Jul. 2019 - Present*
Advisor: Prof. Lei Hao *Shanghai Astronomical Observatory, Chinese Academy of Sciences*

· Motivated by the unusually high-[NII]/[SII]-ratio found in FUV-luminous galaxies noted in previous works.
· Explored distributions of [NII] and [SII] in SDSS IV MaNGA(Mapping Nearby Galaxies at APO) MPL-8 data of 6500 galaxies with their BPT classifications by mapping [Hα]/[NII] - [Hα]/[SII].
· Discovered five galaxies with unusually prominent [NII]/[SII] ratio, extracted spectroscopy and mapped their flux and dynamic properties to exclude possible mechanisms.
· Proposed to probe the HI gas contents of 5 galaxies with high [NII]/[SII] ratios and 11 with moderate [NII]/[SII] ratios through FAST.

Mapping the Star Formation Rate Change in M99 (NGC4254) *Jun. 2020 - Present*
Advisor: Prof. Amelie Saintonge *University College London*

· Mosaicked VLT MUSE (Multi Unit Spectroscopic Explorer) data cubes into one for NGC4254. Extracted and matched point-like sources to correct the coordinate shifts in the cubes.
· Ran narrowband Hα fitting on MUSE data cube. Smoothed MUSE data and combined it with ultraviolet data from GALEX (Galaxy Evolution Explorer) and SDSS u band data, and produced the color-color plot to indicate the star formation history.
· Ran the CIGALE (Code Investigating GALaxy Emission) SED (Stellar Energy Distribution) code to model the spectra given different star formation histories, and compared them with observation.
· Currently working on improving the fitting accuracy using pPXF, and extend the study on other nearby galaxies, e.g. NGC5068, NGC2835 and NGC1365.

HONORS & AWARDS

Xiamen International Bank Scholarship 03/2020
Undergraduate Research & Training Program, Chinese Acedemy of Sciences 06/2019
Guangqi Scholarship of Shanghai Astronomical Observatory 2018, 2019
Scholarship of Academic Excellence, Xiamen University 2018, 2019